THE ARCHITECT & BUILDING NEWS

15 MARCH 1956 · VOL 209 · NO. 11 · ONE SHILLING WEEKLY

- MAYFIELD SCHOOL, PUTNEY
- CURRENT MARKET PRICES AND MEASURED RATES

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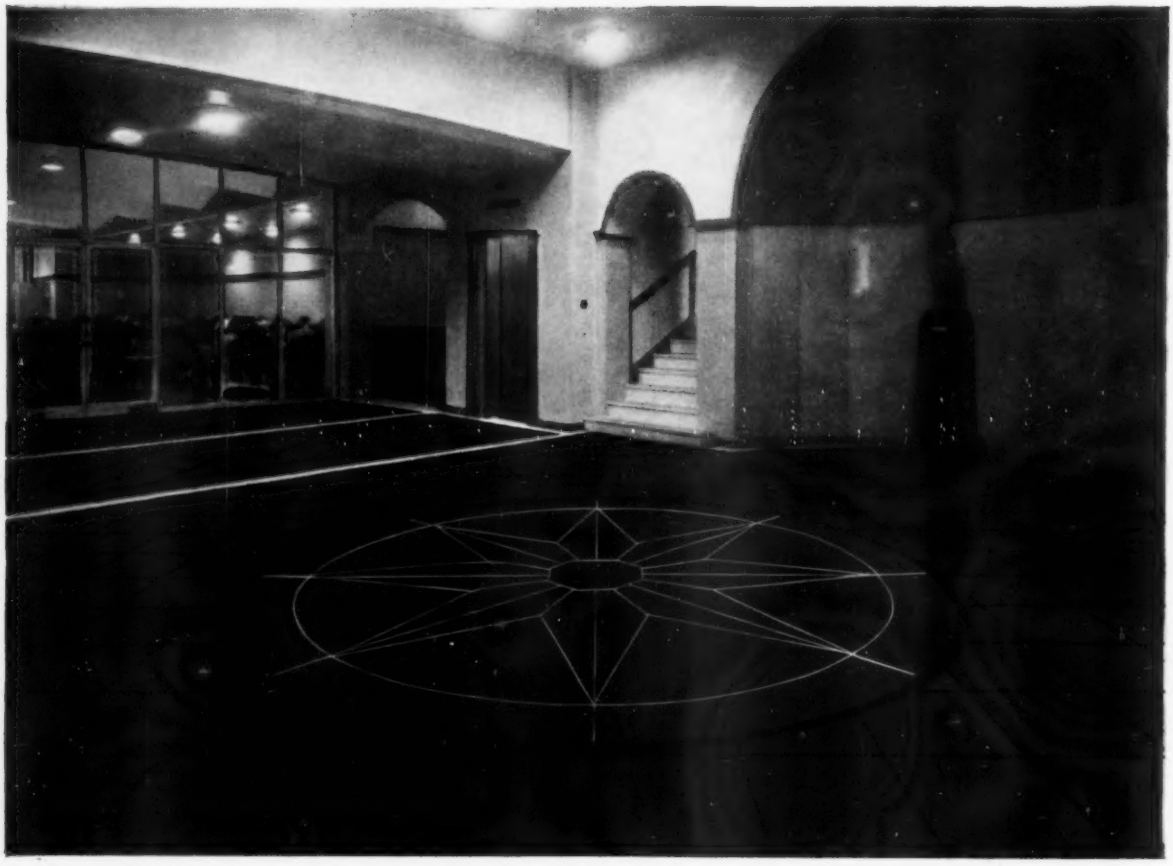

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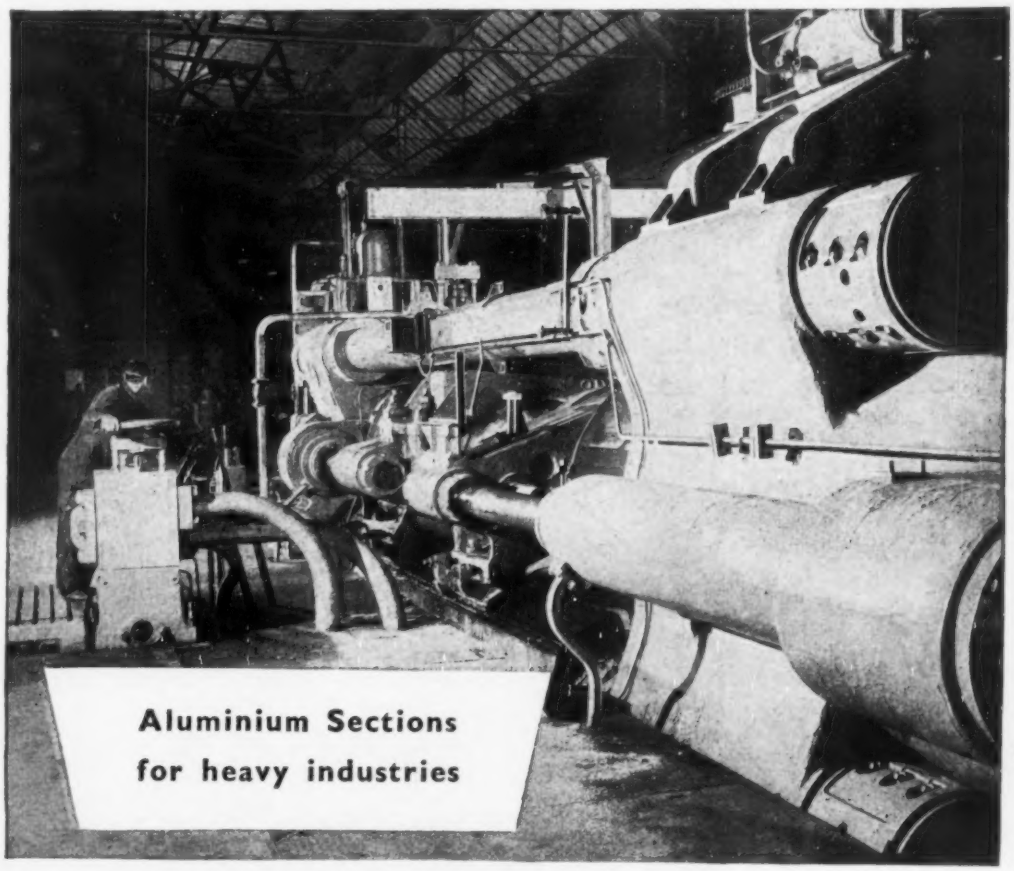

Two additional extrusion presses, one of 5,000 tons and the other of 3,500 tons, have been installed at the Latchford Locks Works of the British Aluminium Company. These presses represent an important extension to the extrusion capacity of the aluminium industry in this country. They will be used to produce a wide range of sections for the road transport, building, ship-building and structural and general engineering industries. Extrusions are available in sizes up to 13½" circum-circle and are specially designed to facilitate the economic use of aluminium in riveted or welded assemblies.

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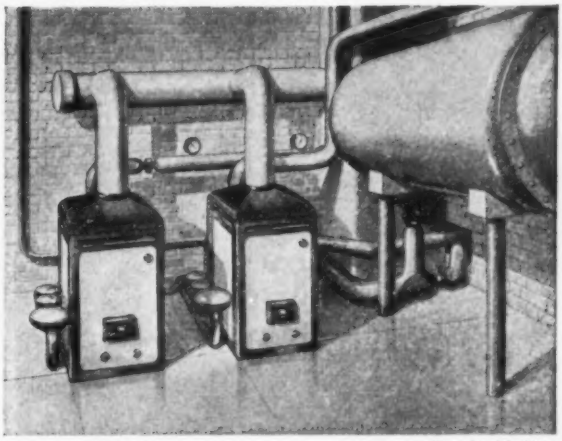
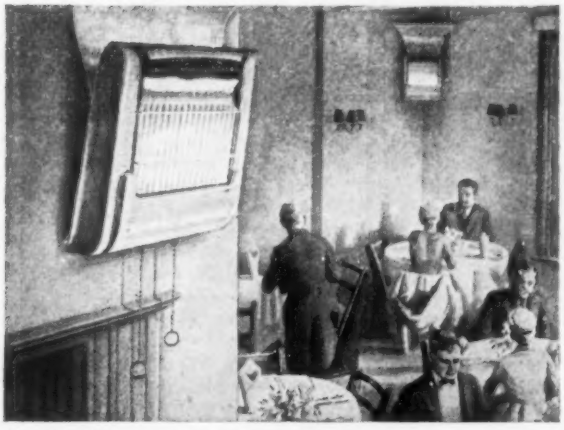


Gas-fired boilers



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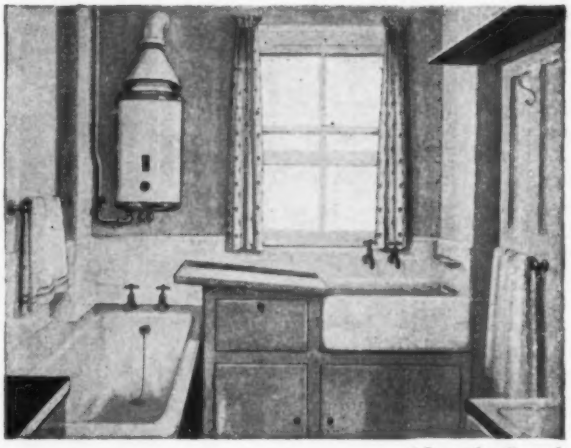

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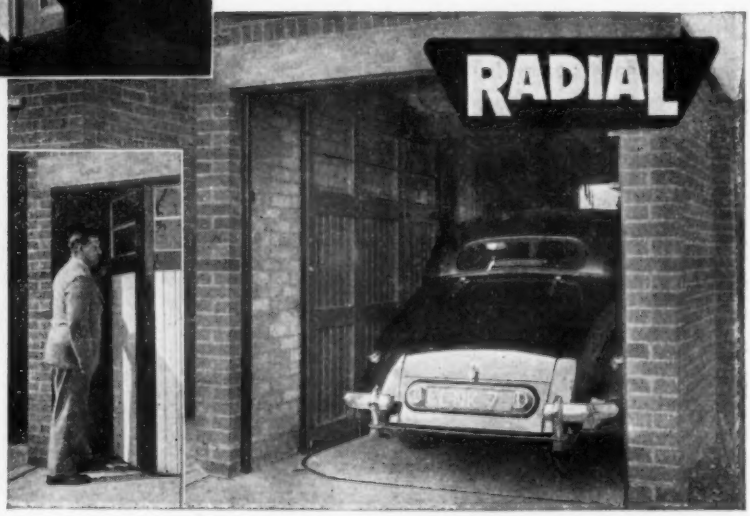

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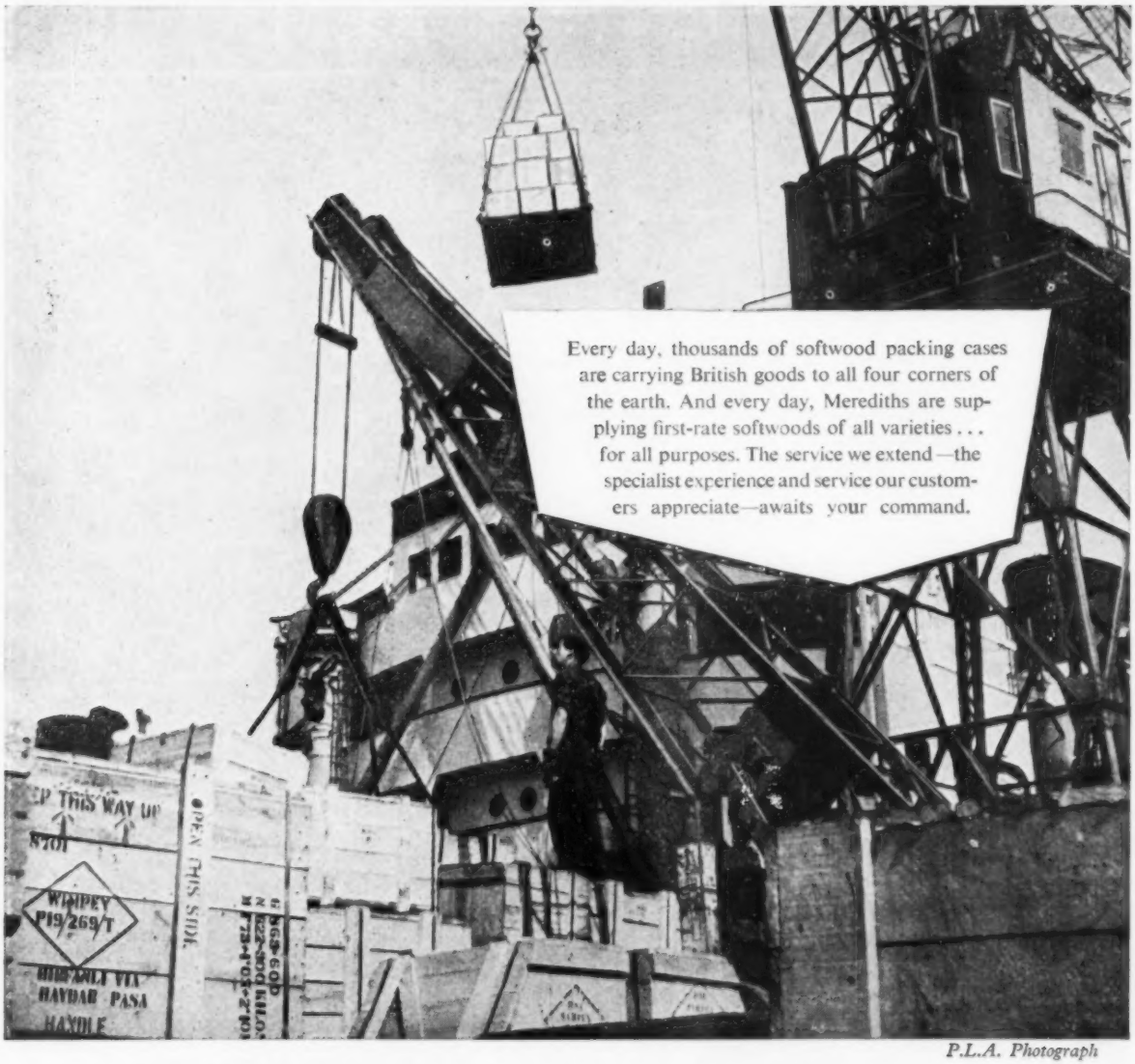

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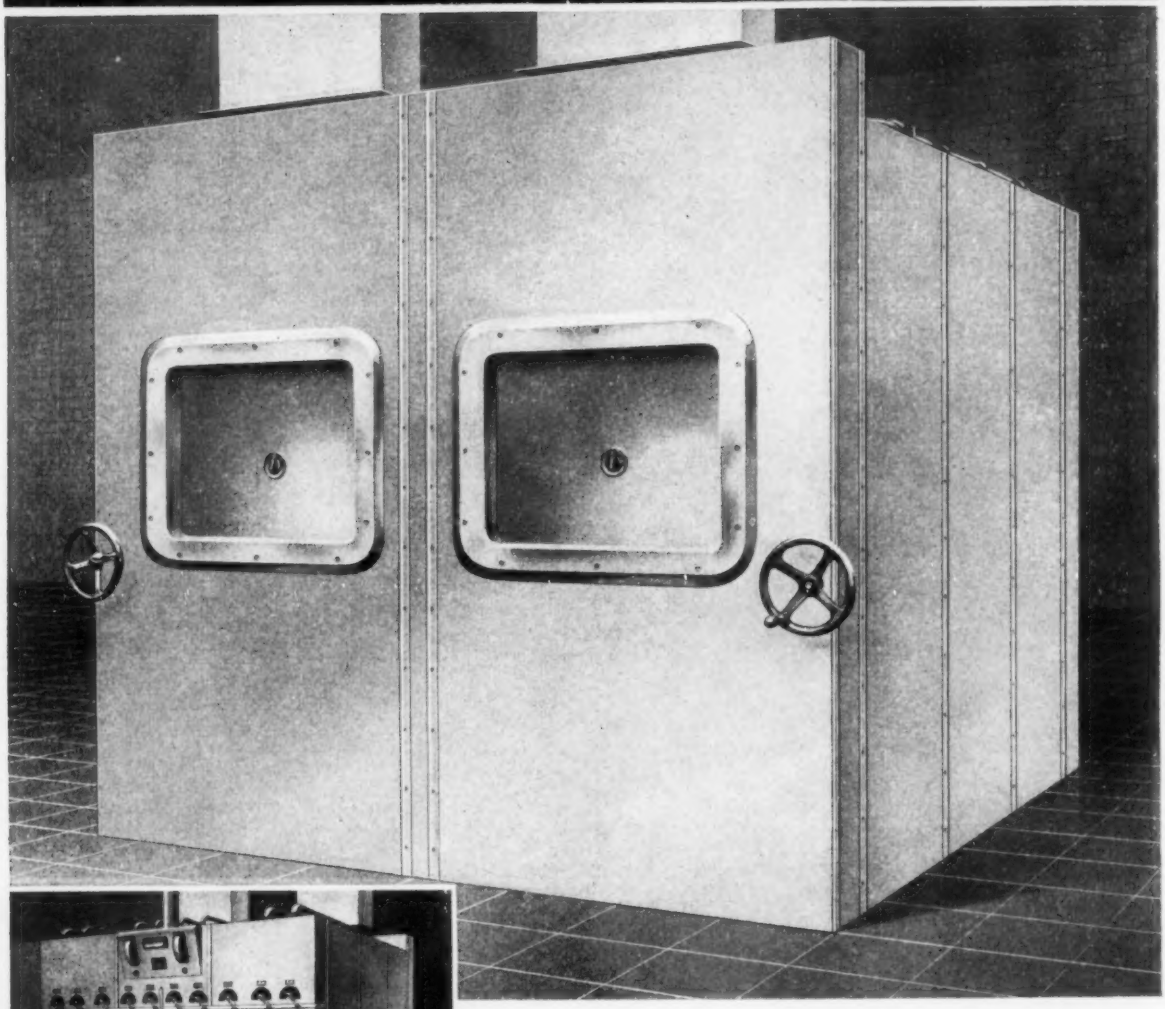

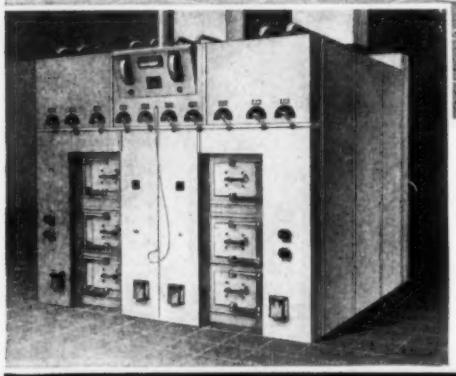

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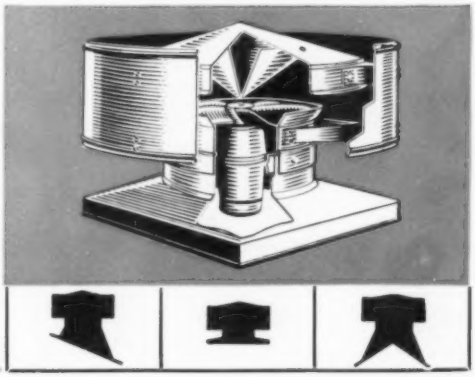

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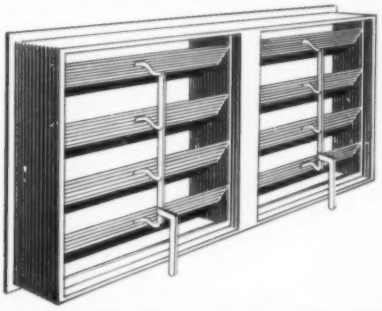

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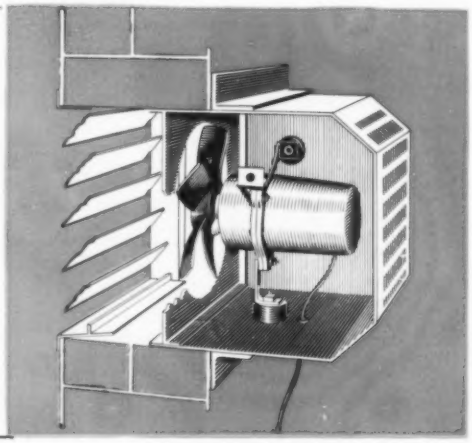

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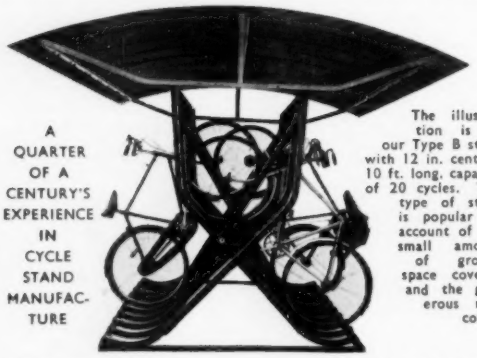

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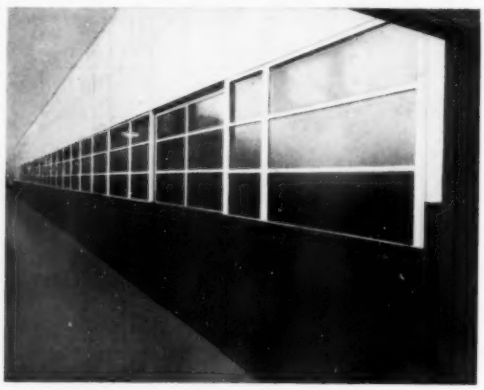

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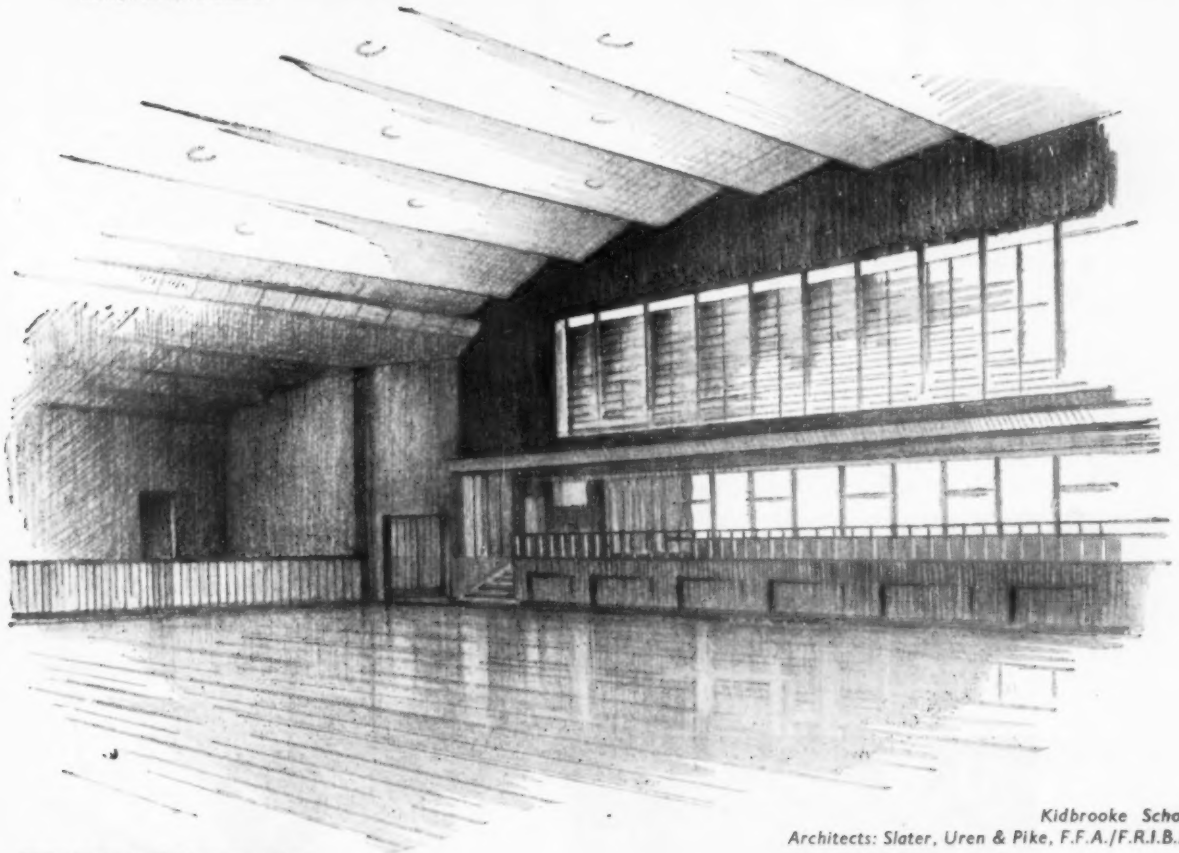

Kidbrooke School
Architects: Slater, Uren & Pike, F.F.A./F.R.I.B.A.

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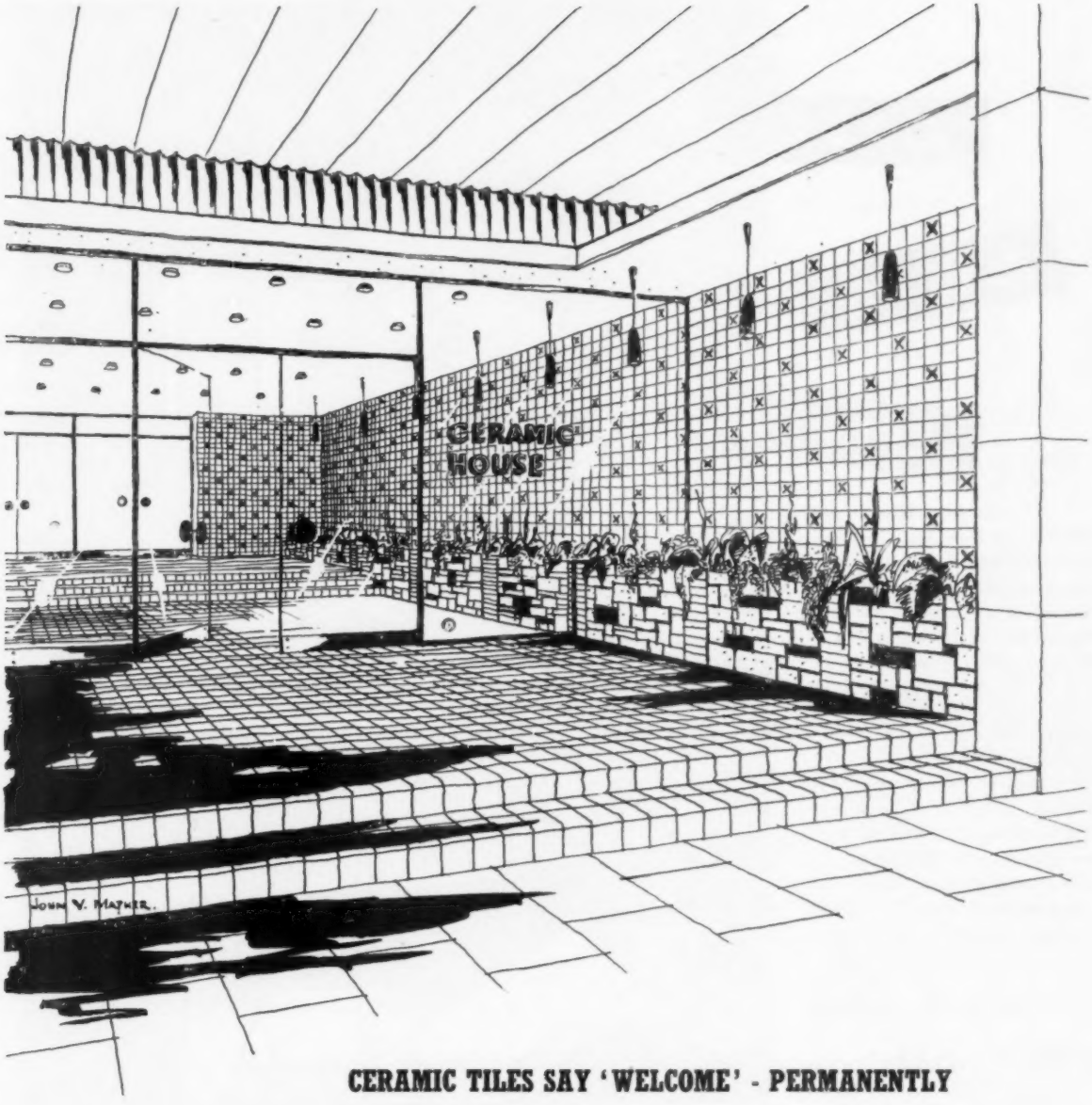

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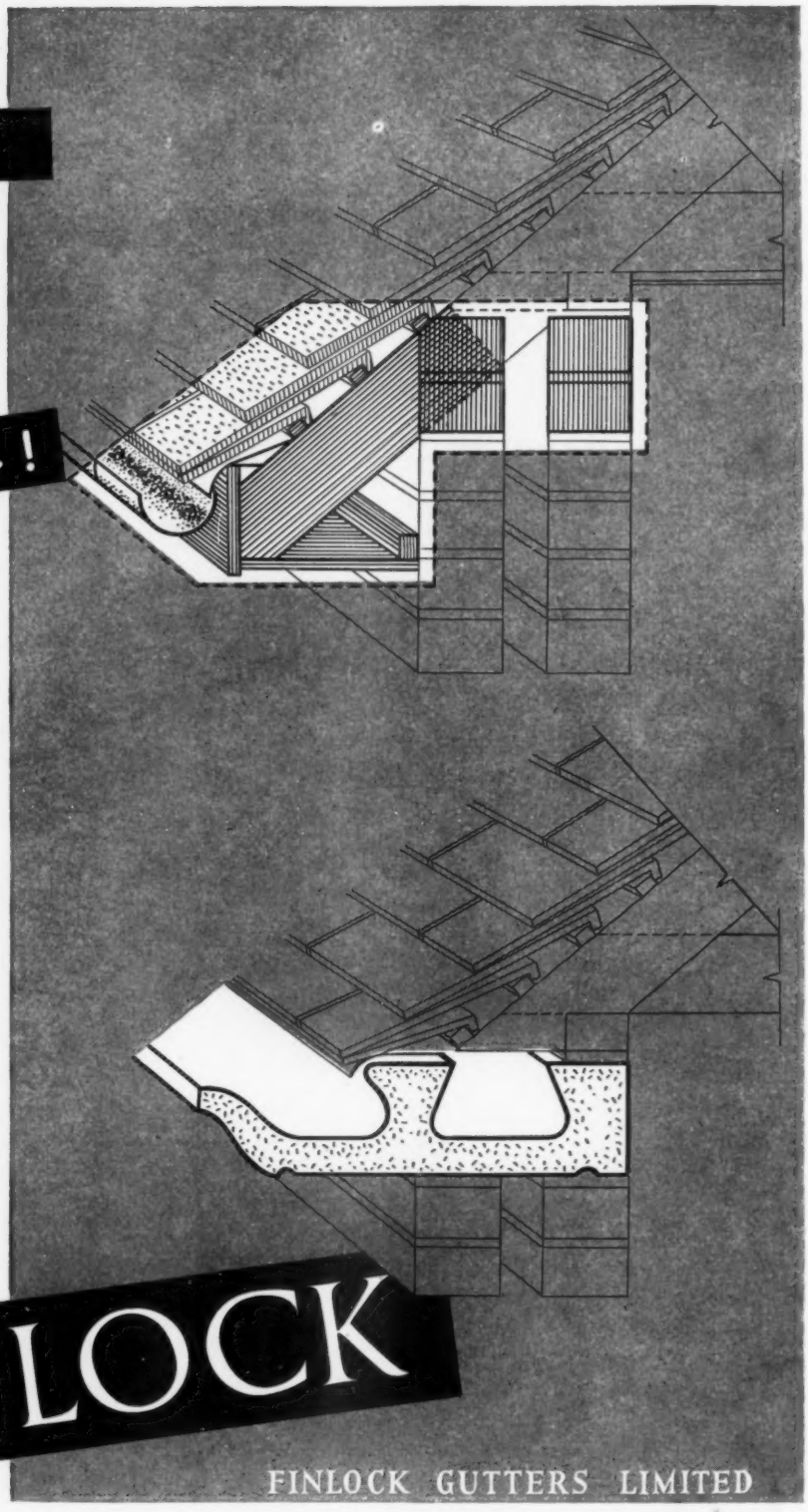

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DHE 24/6

Vol. 209 No. 11

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March 15, 1956

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"MATTHEW, MARTIN——"

LUKE and John might be considered the natural succession at County Hall when the present Architect to the London County Council repairs to the calm of the academic world. But until the welcome advertisement for the post appeared in *The Times*, there were misgivings lest the change in the Planning Division recently made public might be a forerunner of others.

When shortly after the war, the enlightened decision was taken to hand over architectural work to a specialized department of the L.C.C. in charge of the Council's own architect, it was apparent that here lay some hope of retrieving the Council's standard of building design and putting it on a plane commensurate with the best achievements of other authorities, and other countries.

Architects were forthcoming both at the top and elsewhere, and the County Council benefited from the flood of new-found enthusiasm from those who realised the potentialities of the new situation. From this has stemmed the excellent work, particularly in housing and school design, and the Royal Festival Hall, which the Architect's Department has produced in the last seven or eight years.

The first architect appointed to hold this new responsibility found the inducements of the academic world (and possibly also of the banks and braes) too powerful a counter-attraction. And it may not be surprising if he may also have regarded the committee system and the peculiar administrative burdens of his office matters for which life is far too short.

Now after an equally successful tenure of office his successor is following the same road.

This second departure strengthens the feeling that if two first-class architects, whom London can ill afford to be without, are so discouraged, it may well be that the nature of architects is not constituted to put up with the exceptional strain of this particular office for more than, say, five years at a stretch.

The problems which confront the Architect to the Council are as great today as they were immediately after the war, and in some respects more complicated. The housing problem remains; subsidies for general needs have been drastically cut, and there has been a clear warning from the Minister of Housing and Local Government that these are likely to be discontinued in the near future. Slum clearance is likely to pose a greater problem than the gain of building on bombed sites or open land on which the bulk of L.C.C. rehousing work has been concentrated.

We are reminded too that the County Council has indicated its intention of spending large sums of money on developments such as the Crystal Palace Sports Centre and the new Concert Hall on the South Bank. A large number of school schemes have still to be pushed forward and the development work which has been pioneered by a special section of the Architect's Department, including investigation into negotiated contracts, is beginning to come to fruition.

The Development Plan approved last year by the Minister of Housing and Local Government has now to be implemented; and this calls for vigorous and imaginative handling of the details, especially aesthetic control. The reorganisation of the Planning Division, providing wider deployment of the architect-planners whose efforts hitherto tended to be concentrated in the redevelopment areas such as Stepney-Poplar, appears to be sound organisation and may well prove beneficial to London as a whole. But there must be a sufficient number of architects, and of the right calibre, in the area groups to avoid their total effort becoming diluted to the point of being ineffective.

All these problems and many others demand at the top the services of a first-class administrator, who must also be a first-class designer. We sincerely hope that he will be forthcoming and that he will be a "stayer". But if a period of five years is the longest one can expect an Architect to the L.C.C. to hold office, it might work better to try a system which permitted former holders of this office—if so willing—to be reappointed from time to time after a period of regeneration in a Chair of Architecture or other comparable appointment.

E

EVENTS AND COMMENTS

(Abner is still away on Salisbury Plain)

NEW LOOK FOR R.I.A.S. JOURNAL

I have received a copy of *Architectural Prospect*, the first number of the re-designed quarterly magazine of the Royal Incorporation of Architects in Scotland. Its bold cover design in yellow, black and grey on white is enough to show that Prospect is neither "official" nor stuffy. I found it lively and readable.

Scottish architecture is unexcitingly represented by Bishopton Convent School, Renfrewshire, described as "a most impressive recent Scottish Building hitherto illustrated". The first of a series of profiles is on Jack Coia, A.R.S.A., F.R.I.B.A., whose practice, we learn, leaves him little time for cross-country running. This applies to most architects, whether Scottish or not, I should say.

The portrait of Mr. Coia is marred by some crude retouching.

Roy Jackson writes about his nine months in a Danish architect's office. "The occupants were more than willing, and able, to speak English".

Derek Allan went from Dundee School of Architecture to Cornell University, where he qualified. He writes about the American system. "The universities very often engage a leading American architect to act as Dean or Head of their Architectural College. Students then tend to be attracted by their 'big names' and the architectural curriculum becomes moulded to the individual approach of the 'Master'."

Mr. Allan also describes the "visiting critic" idea which brings in architects from outside to lead students in a design problem. (I believe H. T. Cadbury Brown is now at Harvard in this capacity.)

There is a good article on the happy co-operation between architect (Alan Reiach) and builder (Messrs. Morton and Johnstone) in the building of twenty-two spec houses, and one on the "allied art" of mural painting.

The editorial board of Prospect consists of Andrew Hannah, Archibald Doak, Michael Laird, W. Sinclair Gauldie, who illustrates Derek Allan's article with some snappy line illustrations, and Ian R. J. Woods. I hope they get all the support they need from R.I.A.S. members, and suggest they ask Professor Smith of Glasgow to contribute something on what he calls the "ach tae Hell" school of architecture.

L.C.C. ARCHITECTS

Fears that the architects at County Hall might lose ground when Dr. Leslie Martin leaves have now been dissipated by the appearance of the advertisement for the post of successor at a salary of £4,500. This should bring the Council enough worthy applicants from which to choose.

Other recent appointments that I applaud are of Michael Powell as Schools Architect and of David Jenkin as Senior Architect in charge of General Division of the Architect's Department. Readers of this journal will remember Mr. Jenkin's lively articles on the last two Building Exhibitions.

New look for R.I.A.S. Journal

ADVISORY PANELS

How are the Advisory Panels getting on in their grapples with the "Octopus"?

Droitwich Town Council has criticised the Worcestershire Advisory Panel of Architects on the grounds that its suggestions for improving design and appearance were forcing up the price of houses. An instance was given of one suggestion by the Panel that twelve houses should be set back and an end gable added which the builder said would add £40 to the cost of each house.

Ruffled councillors were soothed by a County planning official telling them that no one was forced to act on the Panel's suggestions.

The situation is well described in the report of the chairman of the C.P.R.E. Advisory Panel to Worcestershire Planning Authority, the Hon. Humphrey Pakington, a great personality at the A.A. after the Kaiser war.

Commander Pakington writes:— "During 1955 the Advisory Panel have examined about one thousand designs, considerably more than half by persons with no architectural qualifications. Many of these latter have been helped over the stile by the Panel: many amendments proposed by the Panel have not been accepted by local Councils: and if they have been accepted it does not follow that any attempt has been made to see them carried out. The conditions under which the Panel labour are therefore discouraging. They see many dull but passable buildings erected, which in expert hands

could be made attractive; and they realise that their work is considered an unnecessary interference by some local Councils, while few if any are sufficiently interested to take the trouble to see that the recommendations of the Panel receive attention. Nevertheless, there is evident a gradual improvement in design as the views of the Panel become more widely known, and the County has undoubtedly been saved from a number of horrors which would have been perpetrated had there been no system of control. This however is a slow way of educating the public, and unless a more rapid method can be found to enforce good design, the County is likely to suffer for generations from an unsightly rash of building.

"Furthermore, it should be noted that the Panel has a say only in the design of the individual building, whereas the layout is sometimes of even more importance. The tendency to squeeze as many detached houses as possible on a site, with the resultant narrow plots, is one of the worst features of today. The English town, which once had a native dignity, has become a sad affair on its outskirts, with rows of perky detached or semi-detached houses laid out without imagination or expert knowledge. There should be more terraced houses to give cohesion to the design (and incidentally to be cosier to live in), and such matters as consideration of contours, turning corners on sites, tree planting, subtle variation of design, uniformity of fencing, and so on, need careful attention. Houses should be good neighbours, but under the present system two houses which have been passed at different times by the Panel, may well turn out to be bad neighbours.

"Many persons do not consider that it needs an architect to design a building: even fewer realise that it is just as important that the architect should be responsible for the layout."

I believe that an officially sponsored booklet is being prepared which will illustrate good examples of most of the points mentioned above and that it will be on sale for the benefit of spec builders and the like. No one will be forced to act on that either.

BOX AND COX

Birmingham Education Committee made a great to-do when drawings of a proposed Secondary Modern School at Hodge Hill were submitted to it. Sample remarks: "An absolute horror"; "An Iron Curtain Factory"; "A lot of square boxes", etc. The architects, Messrs. S. T. Walker and Partners, returned to the attack with a model and perspective (see cut) specially prepared for the better understanding by a lay committee, with the result that opposition died down considerably.

It was the Lord Mayor of Birmingham who said that he didn't like straight lines or lots of glass. What he did like was good solid building with some curves in it and some ornamentation.

One would think that all these people would by now know something about the economics of building. They do want it both ways.

"A lot of square boxes. . ."

EVA

Eva is short for Baird's Evaporograph, a new kind of camera which operates in terms of heat instead of light. The only details I have seen were given in *Time* which described the apparatus as having a concave mirror which concentrates infra-red radiation from warm objects in the same way that the mirror of an astronomical telescope does with light and directs it into a vacuum chamber through a sheet of salt (used because it allows the passage of heat rays) and on to the blackened surface of a thin sheet of plastic whose other side is coated with a layer of silicone oil. When the heat-ray image forms on the sheet the heat passes through the plastic and evaporates part of the film of oil so that it becomes thinner in some places than in others. When light is turned on this oil film has the kaleidoscopic appearance of an oil stain on water. Hot parts show up in one colour, cooler parts in others. Eva is sensitive to temperature differences of 1 degree. The heat pictures are bright enough to be photographed with an ordinary camera.

Among the uses this camera can be put to, and what this is leading up to, is that it can photograph heat loss from buildings and thus check the insulation. This should be useful to someone.

A. N. OTHER

Correspondence

Saltire Award

Dear Sir,—May I draw your attention to an error contained in the issue of "The Architect and Building News", dated 12th January, in the announcement of an award by the Saltire Society for houses at East Kilbride?

The houses illustrated were designed, not as stated, but under the supervision of Mr. D. P. Reay, formerly Chief Architect there, and building was commenced prior to his leaving East Kilbride. They were illustrated accordingly in "Architectural Design", June, 1952 (p. 163).

As Mr. Reay is now in the United States I have taken the liberty as the Senior Architect responsible for the scheme under him, of pointing out the omission of his name.

Yours faithfully,

R. C. STONES, B.Arch., A.R.I.B.A., A.M.T.P.I.

NEWS

Rehousing Families from Unfit Houses

Mr. Duncan Sandys, Minister of Housing and Local Government, has set up a sub-committee of the Central Housing Advisory Committee under the chairmanship of Professor J. M. Mackintosh, M.D., F.R.C.P., D.P.H., with the following terms of reference:

"To examine problems of housing management arising from the rehousing of families from unfit houses and to make recommendations".

Organisations and individuals wishing to submit evidence to the sub-committee should write to the joint secretaries, Miss M. Empson and Mr. I. Davey, at the Ministry of Housing and Local Government.

M.O.W. Exhibition Aid For Historic Buildings

An exhibition by the Ministry of Works in association with the London County Council on the work of the Historic Buildings Council for England is to be opened at Kenwood, Hampstead, London, N.W.3 (home of the Iveagh Bequest) on 26th March, 1956, by the Hon. Sir Harold Nicolson, K.C.V.O., C.M.G.

The Historic Buildings Council for England was appointed by the Minister of Works in October, 1953, mainly to advise him on the making of grants towards the repair or maintenance of buildings of outstanding historic or architectural interest in England or their contents. Financial aid from the Government has already enabled many outstanding houses to survive the crisis of major structural repairs. That is the main theme of the exhibition: the scope of the grants demonstrated by means of panels with drawings, prints and photographs. The exhibition will remain open (weekdays 10 a.m. — 7 p.m., or dusk if earlier) until May 9th.

Regional Consultative Machinery

It has been announced by the Joint Consultative Committee of Architects, Quantity Surveyors and Builders that regional joint consultative machinery on the lines of the national body is now active throughout the whole of England and Wales.

Building Contracts

Having considered the recent undertakings given by a number of producers of building materials to keep the prices of their products stable for certain fixed periods, the Council of the N.F.B.T.E. decided to recommend to members that in respect of contracts up to £5,000 in total value, the duration of which would not exceed six months from the date of tender, the materials fluctuations clause should be omitted from Government contracts under Form CCC/Wks/1.

In view of this decision it is likely that the new limit will be operated in practice in respect of other contracts also.

The centre piece of this year's Ideal Homes Exhibition, which opened last week, is a 15th century castle designed by Malcolm Haylett. It faces the main entrance at the end of the Grand Hall, Olympia.

Scotland's Housing

The number of new permanent houses completed in Scotland in January was 1,744, bringing the total of permanent houses built in Scotland under the post-war housing programme to 258,386.

January's total this year compares with 2,419 in the same month a year ago. The number of houses under construction at the end of January was 38,115 as compared with 36,927 a year ago.

Of the houses built in Scotland since the war, 240,906 have been built by public authorities, and 17,480 by private builders for sale to private persons.

In England and Wales 19,525 new houses were built in January.

Polythene Piping for Cold Water Services

The Metropolitan Water Board has given its approval for the first time of the use of polythene piping for its cold water services above ground.

A letter from the Board giving this decision was received by a meeting of a technical committee (general extrusions) of the British Plastics Federation on February 28. The letter stated that the tubing must conform to British Standard 1972, which specifies heavy gauges, and also laid down conditions as to methods of jointing. Compression type joints are required for service and distributing pipes. For flush, warning or overflow pipes, for which normal gauge tube could be used, spigot type joints in accordance with the Standard are permitted.

The committee regarded the decision, which followed many years of tests by the Board, as welcome progress towards combating frost damage — in the February cold spell, the Plastics Federation had no reports of bursts of polythene piping although it had been used in some of the most affected areas.

Further steps are to be taken by the Federation, however, with a view to examining the Board's restrictions on below-ground use and to overcome any technical difficulties in the way of wider adoption. With regard to recent statements on the permeability of polythene tube, the committee's view was that if pipes are laid under-ground with the correct degree of separation there is no possibility of permeation. Even if there were a burst gas main lying right alongside the polythene tubing in which water had been standing for some time, there was no evidence that there would be any effect on public health because the degree of permeation would be so infinitesimal.

In Parliament

Imperial Institute Defended

The Royal Fine Art Commission has written to the Treasury reaffirming its opposition to the demolition of the Imperial Institute, and its view that the main block could be adapted to fit in with the planned expansion of the Imperial College. In its reply, disclosed on March 7 by Mr. Brodie, Financial Secretary, the Treasury has invited the Commission to a meeting "at which the considerations which influenced the Government in arriving at their decision in this matter can be explained in more detail than is possible in a letter, and at which the proposals of Imperial College can be discussed with representatives of that body and of the University of London".

The Commission's views are set out in a letter dated February 25, in which it is stated—

On June 11, 1955, the Commission told the Treasury that in its opinion the Imperial Institute buildng was one of "outstanding significance" and "should be preserved".

It is profoundly disturbing to learn that it is now proposed to demolish the building. The Commission's opinion of its great architectural quality has been confirmed by authorities of widely different points of view in recent correspondence in the Press. It is moreover an historical monument commemorating Queen Victoria's Golden Jubilee and paid for by public subscription. To destroy a building of this quality and importance would be an act of vandalism. To do so could only be justified if it were proved beyond any doubt that the public interest demanded it, and that there was no possible alternative.

The Commission does not believe that this is the case. On the contrary, it sees in the evidence submitted no justification for such an action.

In its letter of June 11, the Commission suggested that the main block of the Imperial Institute building might be adapted internally for use by the Imperial College, for example, as a Science Library. The building, which does not include the galleries, is shallow and occupies only a fraction of the site.

The Commission believes that this suggestion has not received full consideration, and it urges once more that it should be the subject of an impartial inquiry before a final decision is reached.

The Minister has stated that additional land would be required for the Imperial College if the Imperial Institute building were retained, and that this would be difficult to find in the neighbourhood.

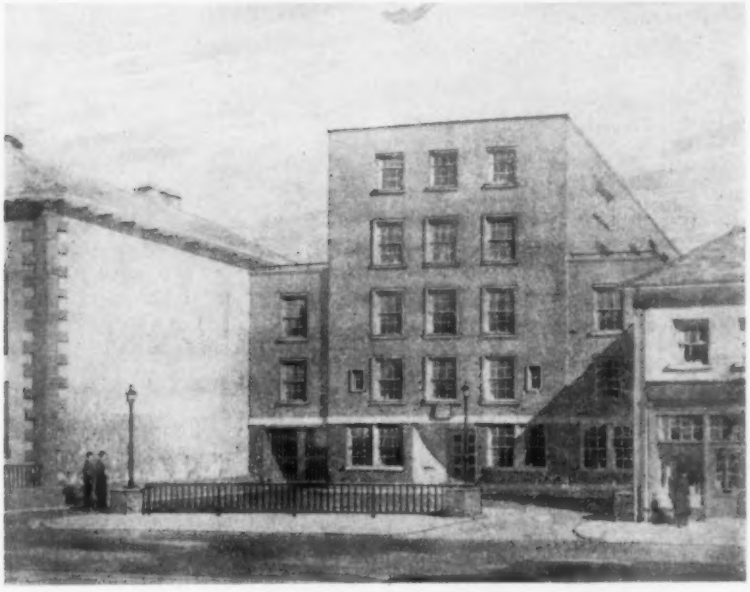
If, after further inquiry, this proves to be the case, the Commission suggests that the London County Council, as Planning Authority, should be consulted on alternative neighbouring sites and on their zoning.

Until these inquiries have been made, the Commission cannot accept the contention that the necessary expansion of the Imperial College is only possible if the main building of the Imperial Institute is destroyed.

It has been made clear that this view of the Commission is shared by a large body of responsible public opinion.

The Commission wishes once again to stress the great importance of this building and urges the Government to reconsider the matter in the light of its recommendations.

Perspective of the winning design in the architecture competition for the County Council Offices, Enniskillen, County Fermanagh, by Harry Gibberd, A.R.I.B.A., who also had the third place in the Uganda Competition.



R.I.B.A. Prizes

Mr. Michael J. Briggs, who was trained at the Bradford Regional College of Art, obtained highest marks in the R.I.B.A. Final Examinations for 1955 and has therefore been awarded the Ashpitel Prize.

Mr. Malcolm I. Braddock, who was trained at the Manchester Regional College of Art, obtained highest marks in the R.I.B.A. Intermediate Examinations for 1955 and has therefore been awarded the Banister Fletcher Prize.

R.I.C.S. Annual Dinner

The Annual Dinner of The Royal Institution of Chartered Surveyors was held at Grosvenor House, Park Lane, W.1, on Tuesday, 6th March, 1956.

The Rt. Hon. Duncan Sandys, M.P. (Minister of Housing and Local Government) proposed the toast of The Royal Institution of Chartered Surveyors to which the President, Mr. W. R. Brackett, O.B.E., T.D., replied. The toast of the guests was proposed by Mr. Oliver S. Chesterton, M.C. (Member of Council) and the response was made by The Rt. Hon. The Lord Evershed, The Master of the Rolls.

COMING EVENTS

Royal College of Art

March 19, at 5 p.m. Lethaby Lectures. The sixth of a series of lectures by the Lethaby Professor of Architecture, Professor Basil Ward, F.R.I.B.A., Hon. A.R.C.A. on "W. R. Lethaby and his Times". At the Victoria and Albert Museum, South Kensington.

Royal Institute of British Architects

March 20, at 6 p.m. "The External Cladding of Building", by E. D. Mills, F.R.I.B.A. At 66 Portland Place, W.1.

The Royal Institution of Chartered Surveyors

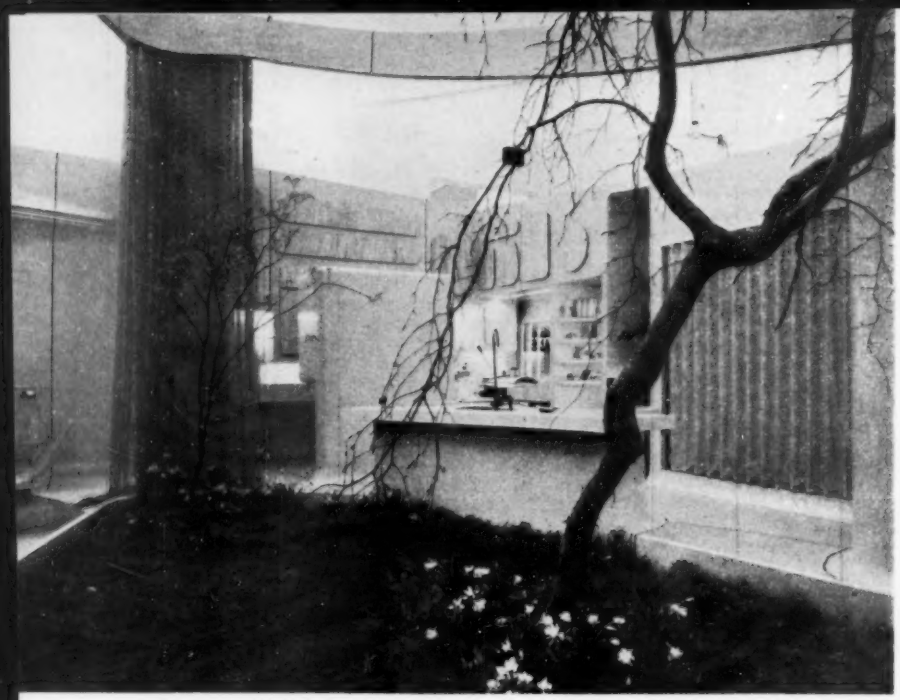
March 20, at 5.30 p.m. Address, illustrated by lantern slides, on "Cost of Residential Estate Development in relation to Density", by L. B. Keeble, M.C., M.A., B.Sc., F.R.I.C.S., M.T.P.I., at 12 Great George Street, S.W.1.

Victoria and Albert Museum

March 21, at 6.15 p.m. "Palladian Villas in North Italy", by Angus Acworth, Secretary, Georgian Group, at South Kensington, S.W.7.

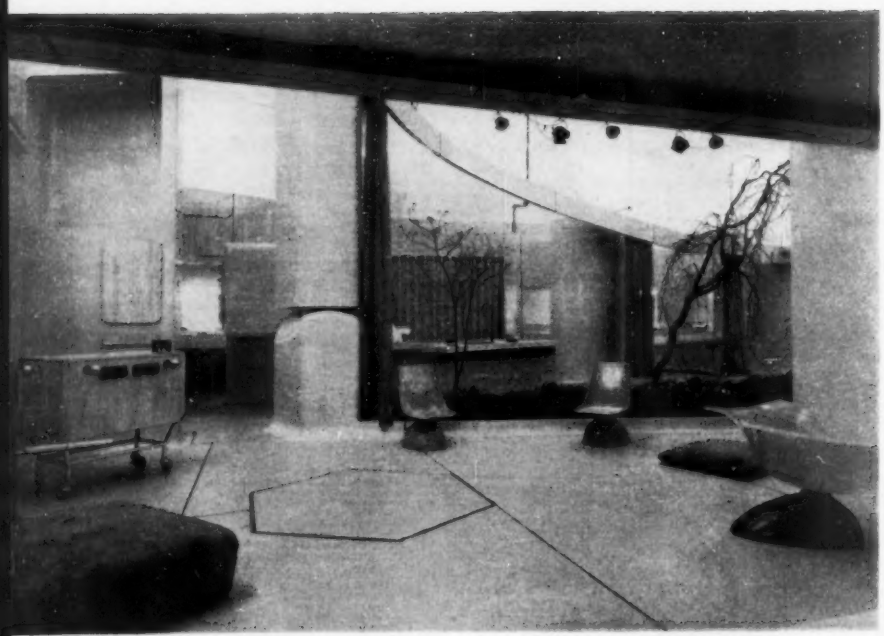
Coventry Cathedral

March 23. Her Majesty the Queen, accompanied by the Duke of Edinburgh, will lay the foundation stone of the new Coventry Cathedral.



Patio Garden

Living Room



Architects:
Alison & Peter Smithson

Wash basin and R.W. butt

IDEAL HOMES EXHIBITION

House of the Future

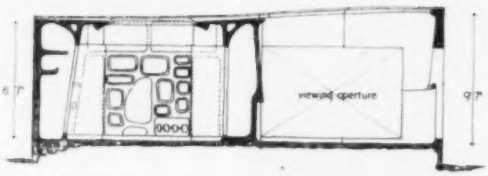
THE intention of the "House of the Future" was to present a probable design for living twenty-five years hence. In the view of the architects, Alison and Peter Smithson, the house of the 1980's will be different, not only in itself but also in the way in which it is arranged within the framework of the community.

This particular house has been thought of as a town house. It is not set in its own garden but contains the garden within it. Such houses could be grouped together to form a compact community with a truly urban feel about it, leaving the countryside unspoiled. The tiny garden is obviously inadequate for children to play in, so one must imagine a block of such houses, with adjacent garages and workshops where necessary, interspersed with small paved play areas and with great swathes of parkland running through the residential areas.

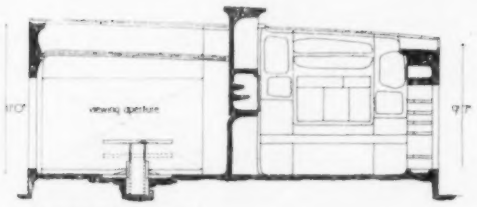
The house is arranged round the patio garden. It is electrically heated and air-conditioned throughout and the rooms flow into one another freely like the compartments of a cave. Should absolute privacy be required, folding doors which are normally invisible inside the fittings could close across the apertures.

The highest room is the living room at the north side of the house—facing south across the patio; the lowest, the bedroom at the southside—facing north across the patio. The tilt of the roof over the bathroom allows the sunlight into the patio and the high living room.

The caller is admitted through the electrically operated front door, which can be opened from the hall.



SECTION Y-Y



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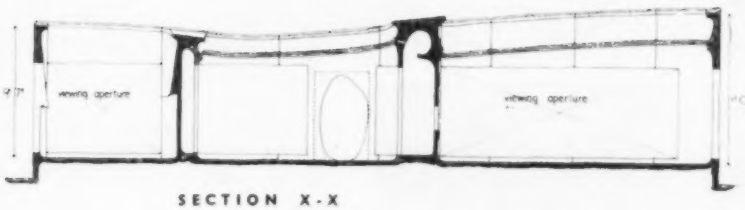

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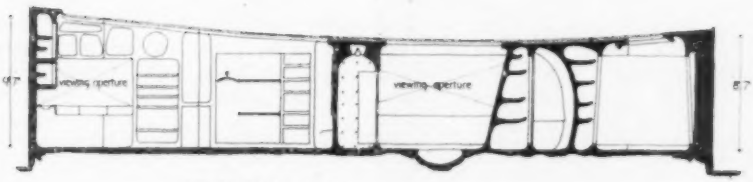
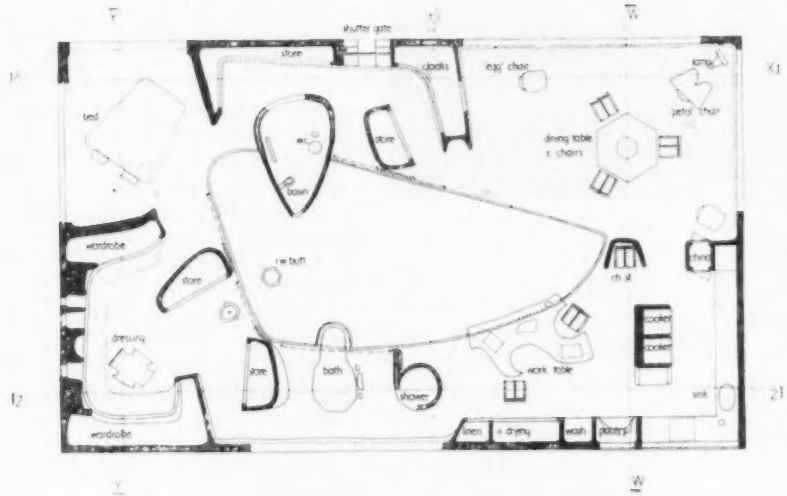


SECTION Z-Z

PLAN



or from the kitchen where the control switch is in the front door telephone panel.

The caller steps into the hallway through a protective screen of warm air automatically brought into operation as the front door opens. The warm air, coming from above the door, is extracted through a grill in the floor below, and this takes care of any dust on the visitor's shoes.

Living Room

This lies to the left of the Hallway and is the tallest room in the house. At most times this room is a clear space with a scattering of polyaster chairs in it. But at the touch of a control a portion of the floor rises to become a dining table or a coffee table. The table is operated from a control panel at the entrance to the room, which also contains the external telephone and allows for loud speaking and receiving.

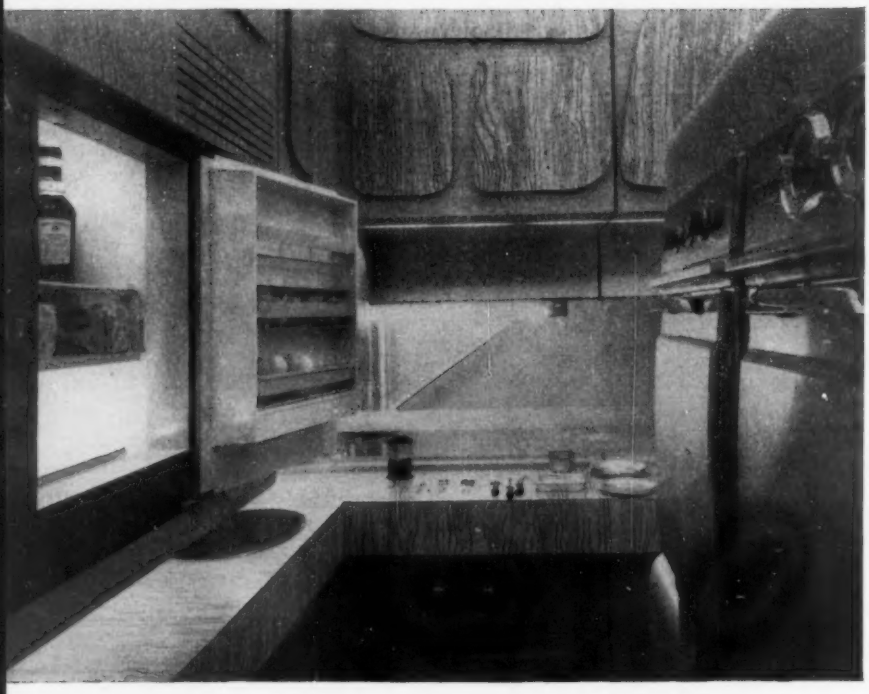
Structure

It is assumed that the house is moulded in plastic impregnated plaster, a kind of skin structure built up in parts with a flexible joint to allow for thermal movement and provide structural discontinuity, which reduces noise. These joints break up the surface into units in scale with the size of the compartment concerned. Floor, walls and ceiling are considered in these units as a continuous surface. The lighting has been integrated into this surface and is especially designed to give a different character to each part of the house. From a technical point of view this continuous surface with rounded corners is easily maintained.

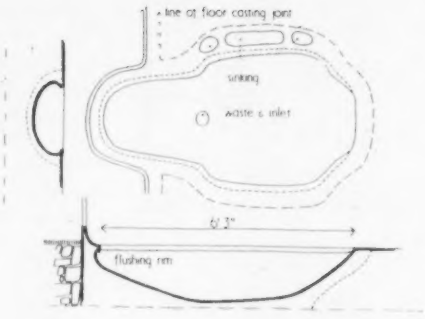
The roof is double curved and dished to allow sunlight penetration. This dishing carries the rainwater to a single point through which it flows down a gargoyle to a container in the garden. The top surface of the roof is covered with an aluminium foil (on a waterproof base) to reflect the sun's rays.

The three walls which adjoin the houses around have a soundproof, fireproof isolating outer casing faced with aluminium foil as a discontinuing membrane between all houses. On the wall facing the street the outer casing is sprayed

Two views of the kitchen



The sunken bath, a bakelite polyaster/glass-fibre moulding to the architects' design. It fills from the bottom at whatever temperature is required.



House of the Future

with a plastic protective and decorative skin.

The Inside Surfaces

The inside surface of walls, floor and ceiling are honey-coloured, with brown "gasket" joints, and are partly translucent, as a background to the life within and to the garden. It is assumed that the "glass" wall to the garden is moulded in metal-reinforced transparent plastic, with a sliding opening portion to the living room to give access to the garden.

Fittings & Furniture

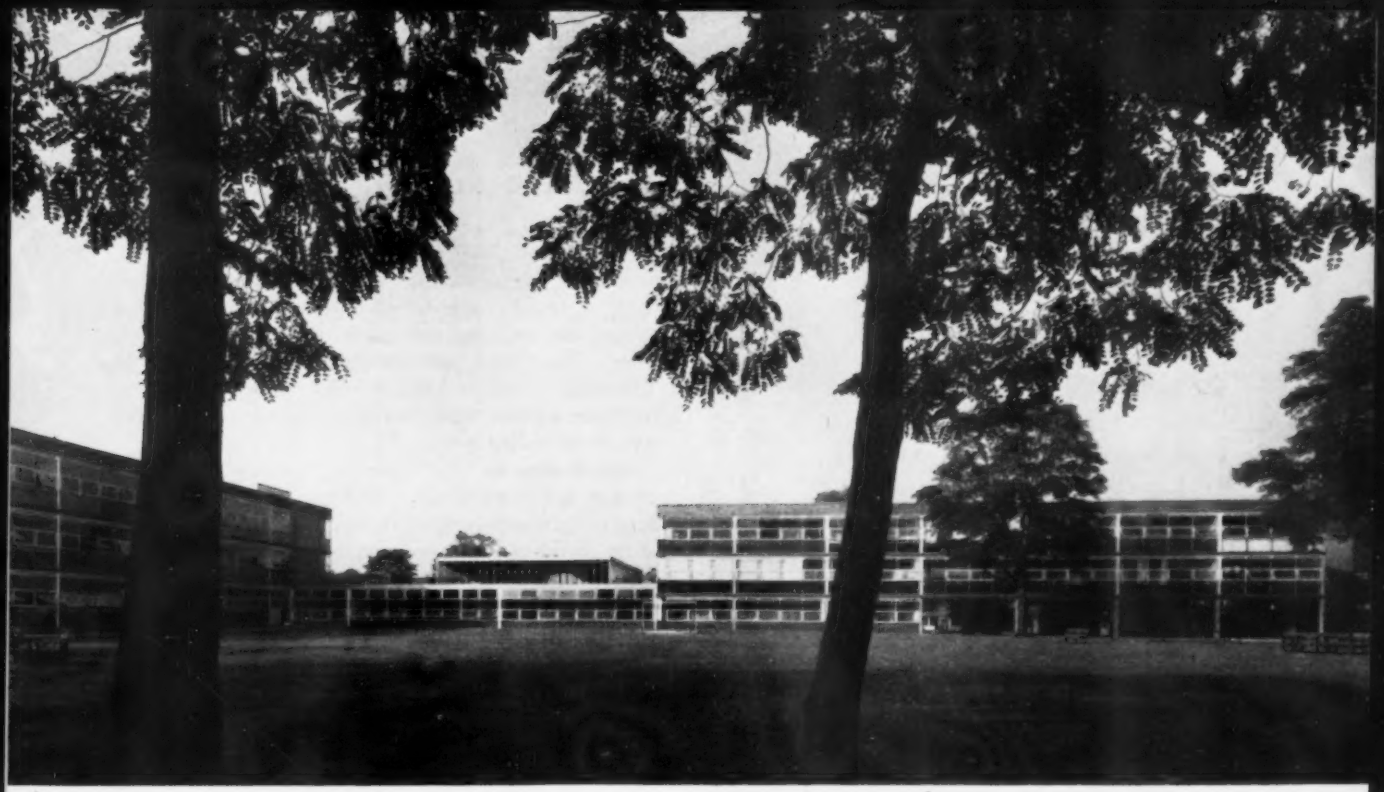
All fittings are moulded in the wall surface to suit the particular requirements. They are screened with flexible folding doors which keep them free from dirt and maintain the continuity of the room shapes.

Discounting labour-saving appliances, the only mobile equipment in the whole house are the chairs. There are four varieties—the Pogo chair: the Egg chair: the Petal chair and the Saddle chair—all designed by the architects.

General Service

The public electricity supply from the nearest atomic power station takes care of heating, air conditioning, water heating, cooking, refrigeration and home laundry. Heating is basically floor heating, controlled in each area to the desired temperature. The bathroom, for example, is the area of greatest heat. A glow bowl in the living room visually suggests a source of extra warmth. Air conditioning ensures that all smells are mechanically extracted, particularly in the kitchen area, and that dust infiltration is practically non-existent.

Water is supplied at many points in the house: at the work table, in the dressing room, at the dressing table, in the W.C., bathroom and the kitchen.



View from South. Block C and Assembly Hall, Block A on left

MAYFIELD SCHOOL, PUTNEY
for the L.C.C.

architects: POWELL & MOYA

assistant architects:
Robert Henley
Peter Jones
Peter Stewart

THIS school, which it is estimated will cost £347,083 including about £40,000 for furniture, provides accommodation for 1,620 new places, bringing the total number up to 2,120 and thereby converting the school into a Girls' Comprehensive School. The old buildings are used in conjunction with the new but no alteration or conversion work has been carried out to them. Work started on the new buildings in August, 1953, and the school was occupied in September, 1955, five months before the end of the contract period.

The original school occupied a site of about 4 acres and this has been increased for the new extension to 9 acres by absorbing bomb-damaged adjoining properties.

Design:

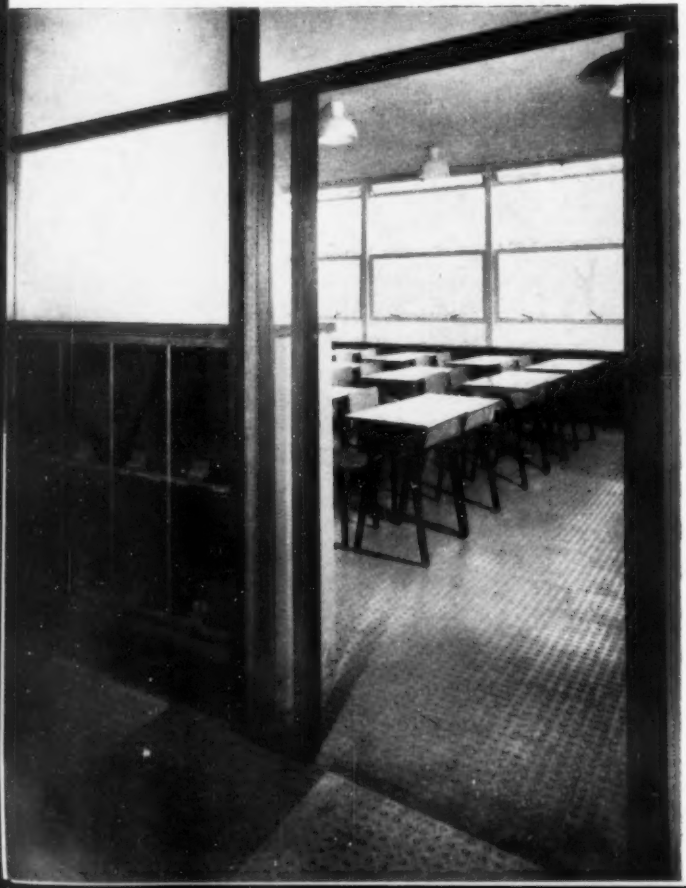
Despite the fact that the school is very large, the aim has been to keep the design as intimate and small scale as reasonably possible. Three-storey height for the teaching blocks was chosen: (1) so as not to dwarf the scale of the existing building; (2) to avoid the use of lifts; (3) to allow an inherently economical form of construction to be used.

Classrooms are divided into three blocks and placed

BLOCK PLAN

Mayfield School, Putney

Biology pool, Assembly Hall foyer on left and South end of Block B in the background. Below, A typical classroom from the corridor.



in such a way relative to each other and to the one-storey gym and assembly hall blocks, that when walking around the building, only parts of it can be seen at a time. This gives a more intimate scale to the buildings. The siting of the building has also been influenced by the many existing trees on the site, hardly any of which have been pulled down.

Centre corridor access for the teaching blocks was chosen, not just because it is economical but it allows for compact grouping of rooms and buildings and for short corridors. Cloakrooms, instead of being centralized, in huge areas on the ground floor, or placed alongside corridors, are formed by widening of the central corridors at ground and first floor levels. They reach out to the large windows in the external walls and therefore act as "lungs" for light and air. Top floor corridors which do not have cloak-rooms are top lit.

As a school of this size requires many rooms larger than the normal classroom (laboratories, practical rooms, etc.) the division of the teaching rooms into three blocks is convenient as the large rooms can be placed at the end of each block.

The open portion of the ground floor of the East teaching block (block C) is a covered play area (forming also a link between the old building and the new) and an entrance hall. This leads to the assembly hall group which is the hub around which the other blocks revolve. The auxiliary halls in this group can be thrown open into the main assembly hall by means of sliding folding doors and when thus enlarged the whole school of 2,100 can be seated in one space. Under the requirements no separate dining rooms were allowed and dining takes place in this assembly hall. When the school is full, it is expected that for lunch two sittings of about 700 each will be required. The kitchens (next to the assembly hall) and the boiler house have been so arranged that they open on to a service yard remote from the rest of the school.

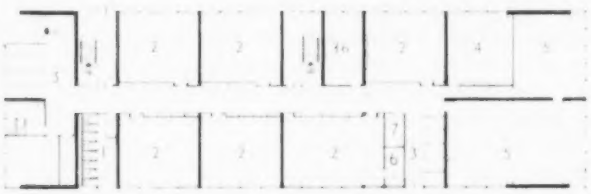
Construction: Principles

The new buildings were designed during a steel shortage and it was felt that, with three-storey buildings, brick structural walls would not only save steel but should also provide an economical solution. At the same time for good day-lighting without excessively high rooms wide windows were necessary. The main structural walls are therefore the internal brick cross walls (common brickwork 9in. thick at all floor levels). First and second floors are of pre-stressed reinforced concrete and roofs of timber. The walls provide better sound proofing between classrooms than is usual. In the few positions where a solid wall is not practical it has been replaced by a R.C. beam and columns. External walls (except the short portions at or near the

Continued on p. 254

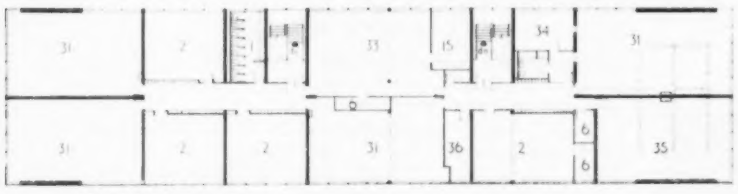
SECOND FLOOR

FIRST FLOOR

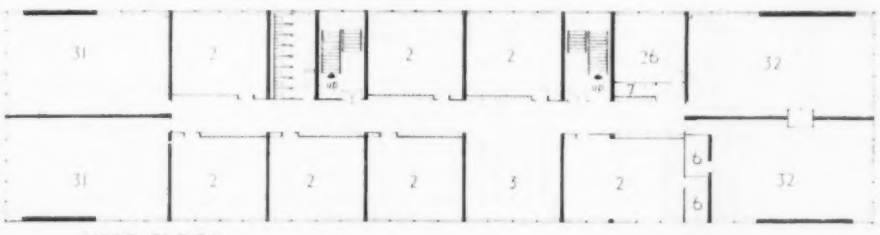


GROUND FLOOR

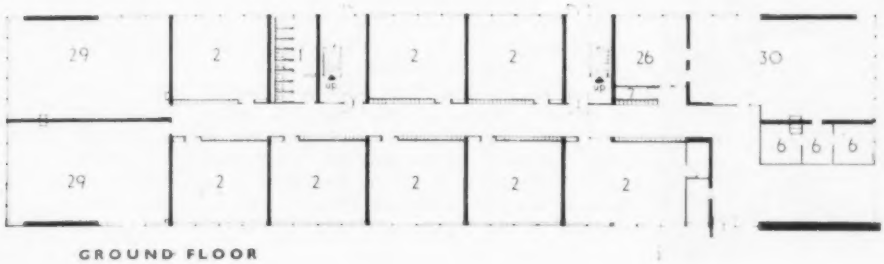
BLOCK B



SECOND FLOOR

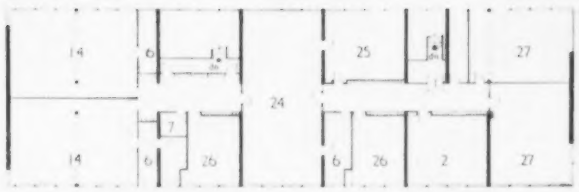


FIRST FLOOR

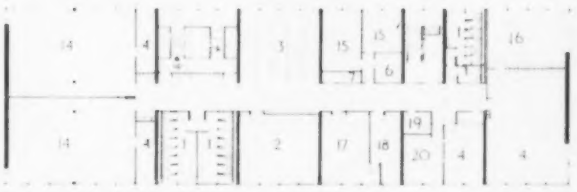


GROUND FLOOR

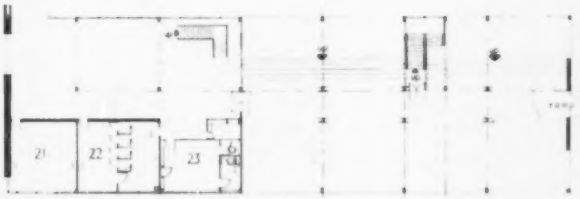
BLOCK C



SECOND FLOOR



FIRST FLOOR



GROUND FLOOR

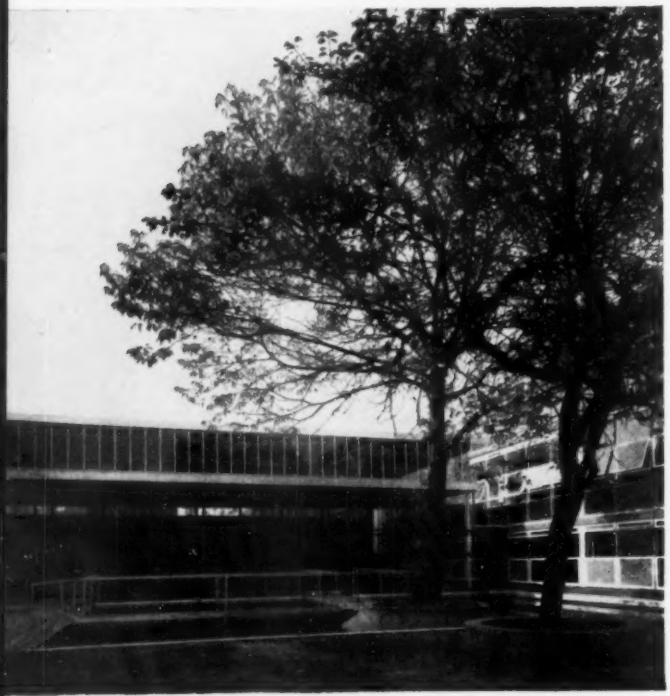
SCALE: 1 IN 48 FT

BLOCK A

KEY

1. Lavatories
2. Classrooms
3. Cloaks
4. Staff Rooms
5. Biology Laboratory
6. Stores
7. Cleaners Stores
8. Physics Laboratory
9. Optical Room
10. Lecture Rooms
11. Prep. Room
12. Gen. Science Laboratory
13. Chemistry Laboratory
14. Art Rooms
15. Office
16. Marking Room
17. Headmistress
18. Secretary
19. Radio Room
20. Deputy Headmistress
21. Dental Room
22. Medical Room
23. Nurses & Recovery Room
24. Library
25. Periodical Room
26. Study Rooms
27. History Rooms
28. Music Practice
29. Geography Room
30. Pre-catering Room
31. Housecraft
32. Technical Needlecraft
33. Typing Room
34. Demonstration Flat
35. General Purpose Room
36. Departmental Head Room

Interior of Assembly Hall; the auxiliary halls on the extreme right can be opened out into the Assembly Hall. Below, Biology pool, Assembly Hall and South end of Block B.



Mayfield School, Putney

Continued from p. 252

ends of the blocks) are non-structural and consist mainly of windows.

The assembly hall roof is supported on exposed rolled steel columns and consists of two steel space frames like inverted hipped-end pitched roofs. To avoid free-standing columns the side aisles are suspended from the roof frames by steel rods. The kitchen roof is steel and timber supported on load-bearing mullions, the boiler house roof of pre-stressed reinforced concrete and the gym roofs are of timber (hardwood trusses on hardwood posts which are supported on load-bearing brick walls).

Unlike most present-day schools, this school does not in fact, depend to any great extent on a standardised, factory-built structure. The conception is of traditional techniques, though perhaps somewhat simplified. The choice of structure for the various parts of the job may appear almost casual; but in each individual case the structure felt to be most appropriate has been chosen. The economics of this diversity of structural systems can be exploited in buildings depending largely, as this one does, on traditional techniques. Because of these basic economies it has been possible to use rather a high standard of finishes.

Notes: Construction and finishes

TEACHING BLOCKS

Foundations: Gravel sub-soil. Strip concrete foundations under bearing walls; the bottoms about 3ft. 6in. below ground.

Ground Slab : 3in. blinding concrete (N.B. no hardcore), damp proof membrane, 4in. concrete, generally unreinforced, 1in. screed. Trenches under corridors with access manholes for main services. Branch services run in smaller trenches in surface concrete.

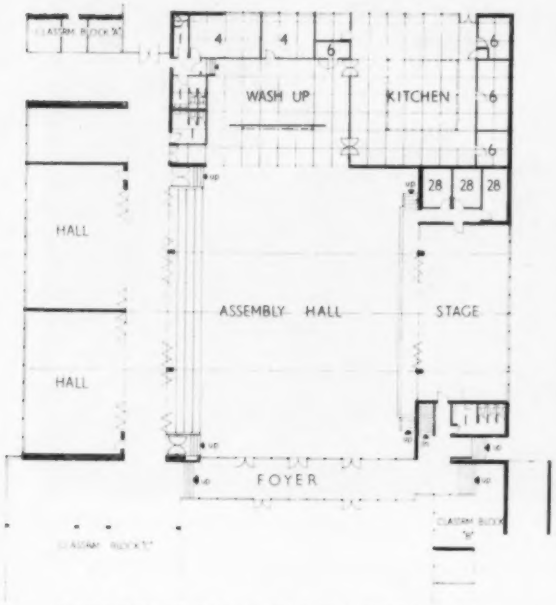
Structural Walls : 9in. common brickwork, when internal with white glazed bricks bonded in at the external exposed ends. Where external, 13½in. brickwork with London stock facings.

First and Second Floors : Pre-stressed clay planks with hollow tile filling and structural concrete topping, spanning, generally, 24ft from wall to wall. Exposed external edges of slabs faced with ¾in. slate fixed back with bronze cramps. On the South and West faces the edge of the slab has a 6in. deep recess for housing venetian blinds boxes and the tops of blinds.

Roofs : Softwood trusses spanning on to cross walls, light timber joists, 2in. plywood slabs, mesh reinforced screed, built-up 3-ply roofing felt with granite chipping finish—no falls. Fascias: Red cedar T and G boarding with backing of ¼in. asbestos cement sheets and building paper. Aluminium flashings.

External Infilling Walls: Floor to ceiling height oiled hardwood frames, glazed. Opening lights: Galvanised steel (top hung, projecting type) painted. Below window cills, coloured stove-enamelled asbestos cement sheets screwed to the back of the hardwood frames which are glazed with ¼in. rough cast glass; internally, an independent skin of 4in. lightweight clinker blocks. Externally at

Continued on p. 257



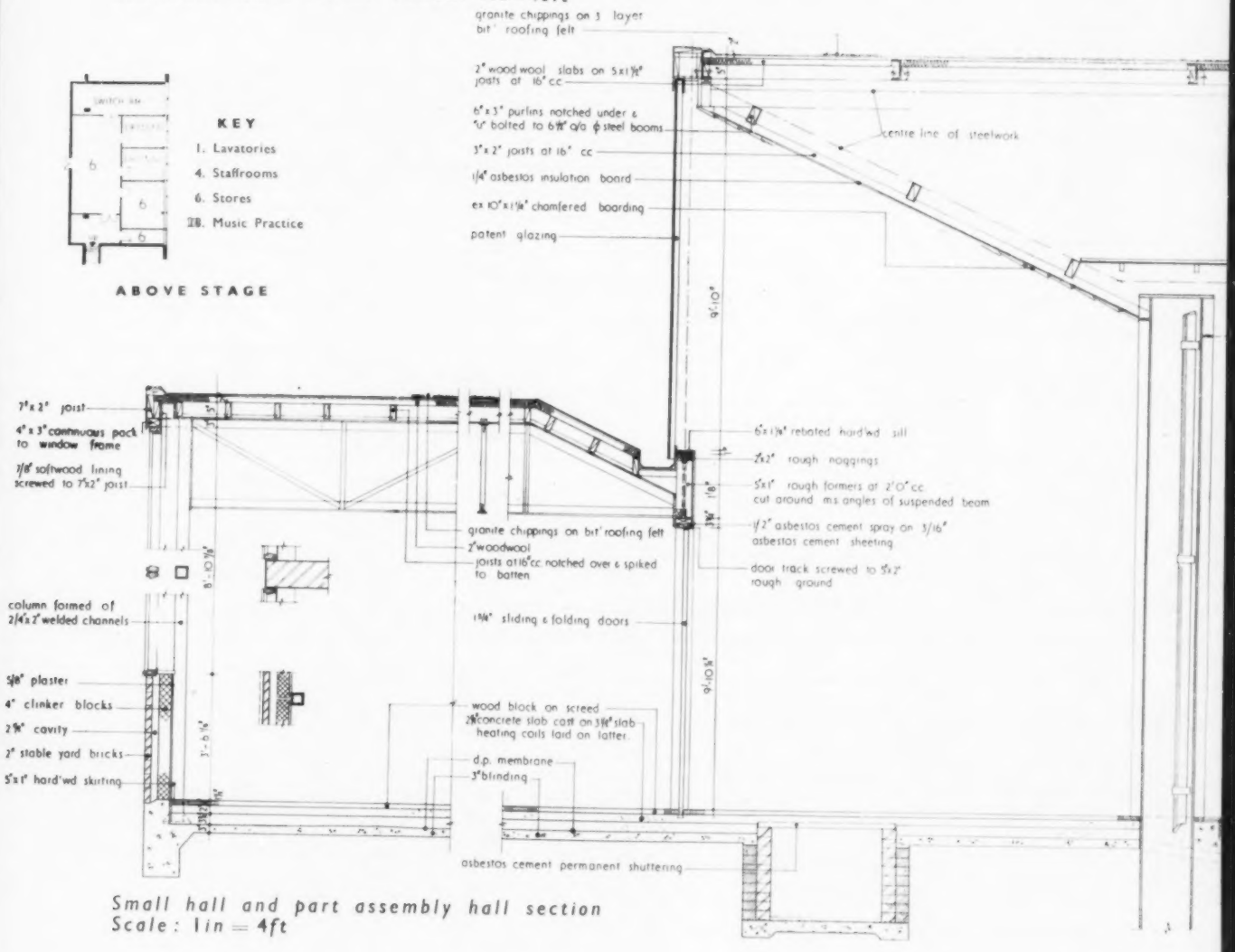
ASSEMBLY HALL PLAN. SCALE: 1in = 48ft

Interior of the Assembly Hall from the stage.

KEY

1. Lavatories
4. Staffrooms
6. Stores
28. Music Practice

ABOVE STAGE


granite chippings on 3 layer bit' roofing felt
2" wood wool slabs on 5x1/16" joists at 16" cc
6" x 3" purlins notched under & 'U' bolted to 6"x8" c/a ϕ steel booms
3" x 2" joists at 16" cc
1/4" asbestos insulation board
ex 10" x 1/8" chamfered boarding
patent glazing
centre line of steelwork
9'-10"
7" x 2" joist
4" x 3" continuous pack to window frame
7/8" softwood lining screwed to 7"x2" joist
granite chippings on bit' roofing felt
2" woodwool
joists at 16"cc notched over & spiked to batten
6"x1/8" rebated hard'wd sill
2"x2" rough noggings
5"x1" rough formers at 2'0" cc cut around ms angles of suspended beam
1/2" asbestos cement spray on 3/16" asbestos cement sheeting
door track screwed to 5"x2" rough ground
8'-10 3/8"
column formed of 2/4"x2" welded channels
1 1/4" sliding & folding doors
5/8" plaster
4" clinker blocks
2 1/2" cavity
2" stable yard bricks
5"x1" hard'wd skirting
wood block on screed
2" concrete slab cast on 3/16" slab heating coils laid on latter
d.p. membrane
3" blinding
asbestos cement permanent shuttering

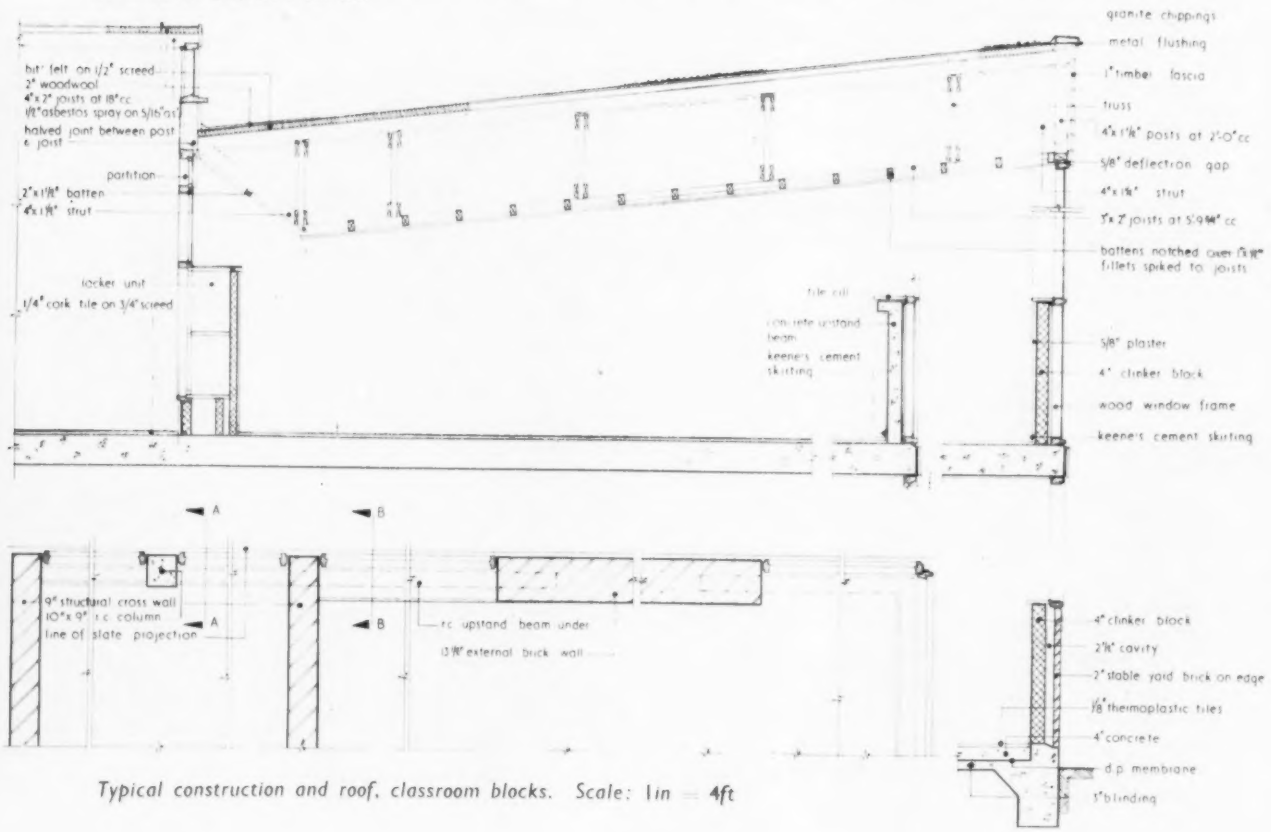
Small hall and part assembly hall section
Scale: 1in = 4ft

Gymnasia from the South-West

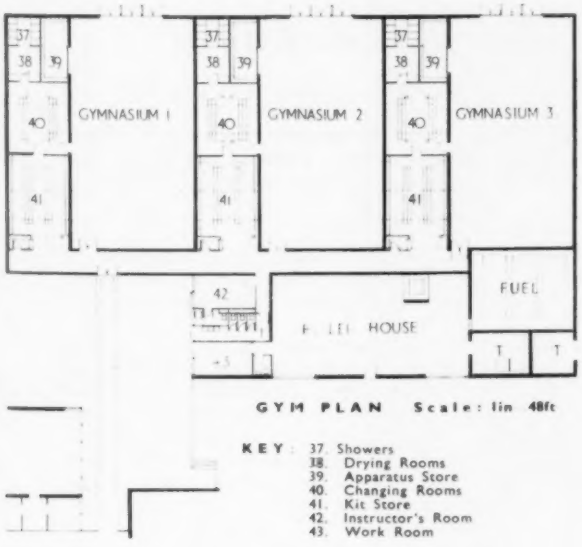
Consulting Engineers:	Ove Arup & Partners (Structural).
	J. Roger Preston & Partners (Heating).
	Chief Engineer, L.C.C. (Electrical).
Quantity Surveyors:	Davis Belfield & Everest.
General Contractor:	C. Miskin & Son Ltd.

Subcontractors:

Asbestos Spray Turners Asbestos Cement Co. Ltd. *Bricks* Richard Parton Ltd., Stoneware Ltd. *Balustrading and Metalwork* The Birmingham Guild Ltd. *Boiler House Chimney* Chimneys Ltd. *Chain Link Fencing* Pearless Fence & Products Ltd. *Cloakroom Fittings* W. H. Gaze & Sons Ltd. (Woodwork), R. Smith (Horley) Ltd. (Metalwork). *Damp Proof Course* G. N. Callender & Co. Ltd. *Distemper* The Walpamur Co. Ltd. *Doors* Veneercraft Ltd., Fredk. Sage & Co. Ltd. (Entrance). *Electrical Installation* The Berkeley Electrical Engineering Co. Ltd. *Flooring* Semtex Ltd. *Glass Domes* T. & W. Ide Ltd. *Glazing* Aygee Ltd. *Heating* Barrett & Wright Ltd. *Ironmongery* A. G. Roberts Ltd. *Lightning Conductor* W. J. Furse & Co. Ltd. *Metal Faced Ply* Venesta Ltd. *Paints* Hadfield (Merton) Ltd. *Partitions* Self-Supporting Highworth Processes Ltd. *Precast Concrete* Malcolm Macleod & Co. Ltd. *Pre-stressed Concrete Floors* Costain Concrete Co. Ltd. *Remote Control Gear* Arens Controls Ltd. *Roller Shutters* Dennison Kett & Co. Ltd. *Roofing* Bituminous Felt, Wm. Briggs & Sons Ltd. *Sanitary Fittings* Stitsons Sanitary Fittings Ltd. *Slate Facings* The Bow Slate & Enamel Co. Ltd. *Sliding Folding Door Gear* E. Hill Aldam & Co. Ltd. *Staircase Mosaic* Philip Suffolk. *Staircase Steelwork* Scaffolding (Gt. Britain) Ltd. *Still Tiles* McKenzie Brytiles Ltd. *Stove Enamelled Asbestos* The Atlas Stone Co. Ltd. *Structural Steelwork* Carter-Horseley (Engineers) Ltd. *Tarmacadam* A. C. W. Hobman & Co. Ltd. *Terrazzo* W. B. Simpson & Sons Ltd. *Varnish* Vitretex (England) Ltd. *Windows* Aygee Ltd. (Aluminium) The Crittall Manufacturing Co. Ltd. (Steel). *Wall Tiling* Dennis M. Williams. *Wood Block and Strip Flooring* Horsley, Smith & Co. (Hayes) Ltd. *Wood Window Frames* Walter Lawrence & Son Ltd.

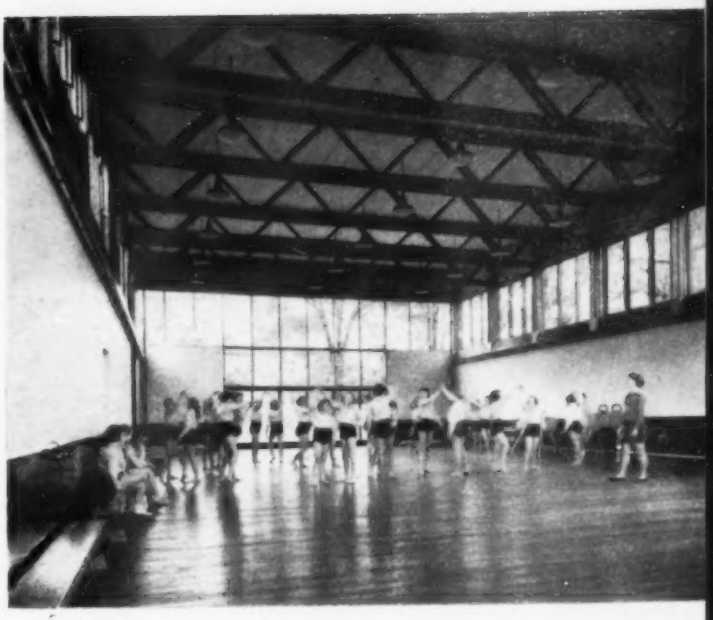


Typical construction and roof, classroom blocks. Scale: 1in — 4ft



GYM PLAN Scale: 1in 48ft

KEY: 37. Showers
38. Drying Rooms
39. Apparatus Store
40. Changing Rooms
41. Kit Store
42. Instructor's Room
43. Work Room



Interior of one of the Gymnasia

Mayfield School, Putney

Continued from p. 254

ground floor level the hardwood frames below cills are replaced by blue brick stable-yard paving slabs, laid on edge, bonded and tied back to the inner clinker skin.

Partitions: Generally of reinforced plaster and consisting either of ½in. plasterboard core (for smaller areas) or of 2in. woodwool core (where partitions are long and tall) with stretched galvanised wires each side and plastered each side.

Joinery: African mahogany treated with two coats of alkyd rubber varnish (matt finish). Doors: Solid flush, and to all teaching rooms faced on both sides with plastic sheeting.

Internal Finishes—Floors. Corridors, cloak spaces, first and second floor classrooms, and some special rooms—light grey studded rubber tiles. Laboratories and Housecraft rooms—P.V.C. sheeting, light grey-brown. Pottery room and lavatories—quarry tiles. Stores etc., dark coloured thermoplastic tiles. Staircase—granolithic landings and risers; black quarry tile treads (except the main staircase in the Eastern block, which is in white terrazzo).

Internal Finishes—Walls: Generally plastered, with emulsion paint finish. Flank walls to main staircase in Eastern block in vitreous mosaic. The mosaic artist is Philip Suffolk.

Internal Finishes—Ceilings. Corridors, cloak spaces, staircase and Common Room ceiling—asbestos spray finish. Other ground and first floor ceilings—medium hard plaster. Other second floor ceilings—lightweight vermiculite plaster on expanded metal.

ASSEMBLY HALL BLOCK

Only items different from above are:—

Foundations. Mass concrete point foundations under the found main columns.

Ground Slab. 3in. blinding concrete, damp-proof membrane, 6in. concrete with insulated heating coils bedded in (for floor panel heating), cement screed.

Superstructure. Four columns, of R.S. sections welded together (unencased), support two tubular steel space frames. Columns are stabilised in their upper half by latice beams (encased) at proscenium arch level. Space frames are stabilised by the flat roofing (light R.S.J.'s and timber joists). Side aisles on their inner faces are suspended by means of 1in. steel rods from the sides of space frames. Auxiliary halls have steel trusses supported on steel columns and timber roof infilling. Kitchen and foyer roofs are mainly timber and mullions are load bearing.

External Finishes. Assembly Hall high level windows: aluminium patent glazing and the fascia and flashing combined of ribbed aluminium.

Internal Finishes: Assembly Hall floor: hardwood blocks (Missanda). Solid walls: unglazed wall tiles (4in. x 4in.) in white, grey, pale blue and dark brown. Sliding folding doors at rear of hall: hardwood framing (unpainted) with acoustic panels faced with perforated hardboard, also unpainted. Kitchen walls: white glazed tiles to door-head height. Space frames: lined with asbestos cement sheets and faced with mahogany lapped boarding, varnished. (The casing of the space frames has been provided primarily for reasons of appearance but it also conceals the extractor fans housed within them and provides a suitable acoustic-reflector finish.) High level areas of ceiling: asbestos spray, absorbent finish.

GYMNASIUM BLOCK and BOILER HOUSE

Only items differing from (a) above are mentioned below.

Walls: Load bearing brick. Gymnasia windows: hardwood, with galvanised steel centre pivoted opening lights. French windows: galvanised steel. Boiler house—galvanised steel sliding doors, glazed.

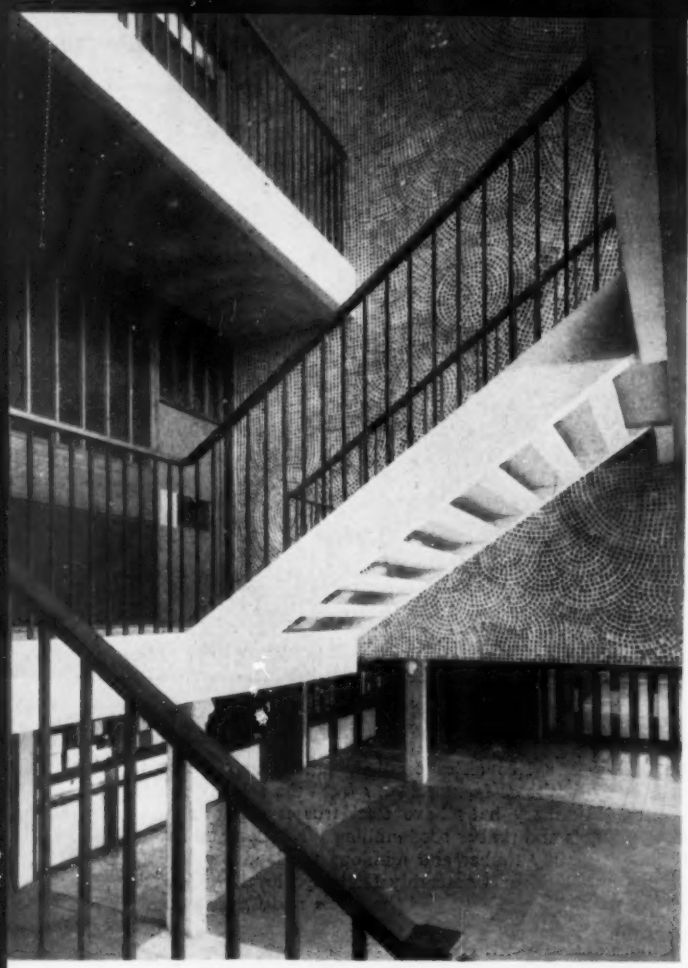
Roof: Gymnasia, hardwood (mahogany) trusses, unencased. Trusses carried on hardwood posts, buttressed by the roofs of the changing rooms. Posts rest on a reinforced spreader beam on the top of the load-bearing brick walls. Fascia: cedar boarding (as for teaching blocks).

Boiler house roof: pre-stressed concrete (as first and second floors of teaching blocks).

Internal Finishes: Gymnasia, hardwood (Gurjun) strip flooring on battens; changing rooms, hardwood block (Missanda); shower rooms, black quarry tiles; corridors and other rooms, light thermoplastic tiles; boiler room, granolithic.

Walls: Generally plastered except main corridor wall and

Mayfield School, Putney



Main staircase (in white terrazzo) of Block C. Vitreous mosaic by Philip Suffolk. Below, Covered way between the old building and the play area under Block C.

boiler house, where fair-faced white flint lime bricks are undecorated.

Gymnasia roofs lined on the under side with 'V' jointed insulation board, undecorated. Ceilings elsewhere: vermiculite plaster; boiler house cement rendering.

Services

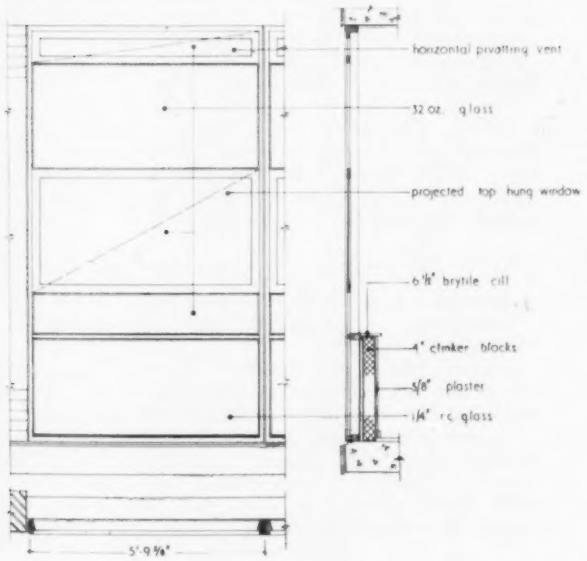
Pipes generally: In most cases, e.g. in cupboards or store rooms, pipes are exposed; elsewnere they are housed in ducts. Drainage: Combined soil and rainwater system.

Plumbing: The rainwater pipes are internal of cast iron. Plumbing generally, cast iron, lead and galvanised steel. Heating and Hot Water: Low pressure accelerated hot water system from oil-fired boilers, feeding hospital pattern radiators (except in gymnasia where there are dado radiant panels and in the assembly hall embedded floor panels). The calorifiers for the hot water secondary circulation are in the boiler room. Pipework, galvanised steel. Cold Water Supply: One central tank (9,000 gallons) on top of South teaching block (Block A.) Pipework, galvanised iron. Fire hose reels distributed around the building. Mechanical Ventilation: Extract fans, assembly hall and kitchen roofs. Electrical Installation: Steel conduit system feeding lighting and power points, conduits being chased in the walls and bedded in the topping concrete of floor slabs.

Costs:

Tender Price (i.e. gross cost): £314,311. Cost per place, £194. (Allowable gross cost per place approximately £280.) Net Cost (i.e. excluding external works) £288,650 or £178 per place. (Allowable nett cost per place at time of planning was £250.) Area of accommodation per place (including covered play area)—67 square feet. During the construction of the job an additional area of land was incorporated into the site and was laid out as a playground. Apart from the cost of this and the increased costs of labour and materials, it is expected that the final cost will not exceed the tender figure.

Window Classroom Block. Scale: 1 in 8 ft.



KIOSK

Liverpool Street Station

architect:

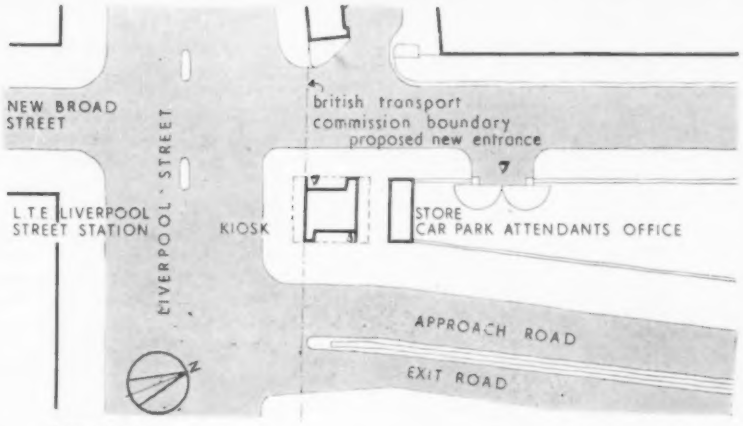
H. H. POWELL, B.Arch., F.R.I.B.A.

principal assistant architect:

R. T. WALTERS, A.R.I.B.A.

architect in charge:

J. WARD, A.A.Dip., A.R.I.B.A.



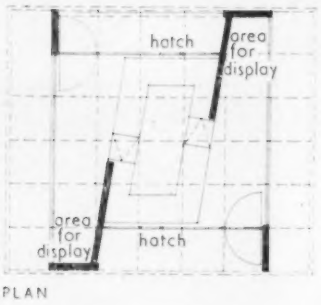
SITE PLAN

THE Eastern Region British Railways has just completed a large kiosk at Liverpool Street Station at the top of the West Side approach.

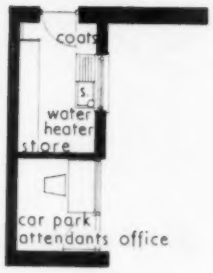
The construction of the kiosk was part of a scheme to re-site the entrance to the car park of the Great Eastern Hotel. Previously this entrance provided access direct from Liverpool Street and was a source of traffic congestion. It has been re-sited so that access is now obtained at a point removed from the main traffic flow. The new kiosk occupies the site of the previous entrance.

Let to Empire Stores (Produce) Limited, it provides a service for the sale of fruit, confectionery and gifts at what is one of the busiest approach points to the station. The kiosk was designed with a view to maximum display area on all sides; entrances were only permitted on the East and West Sides to avoid pedestrian congestion. A store was also required for the use of the tenants of the kiosk and a small office had to be provided for the car park attendant.

The new kiosk is a steel-framed structure consisting of four framed supports made up of welded angle sections and deep perimeter beams of ¼in mild steel plate with angles welded at top and bottom. The roof consists of 2in x 12in timber joists with stiffening members glued to the top edges, spanning between the perimeter beams. These joists are covered on the top side with 1¼in T. and G. boarding, ½in insulation board and three layers of roofing felt. The entire underside of the roof is covered with egg crate louvres which diffuse the light of a large number of fluorescent fittings thus providing a fully-illuminated ceiling. The portions of this ceiling which are exposed to the outside air are protected on the underside with ¼in Georgian wired plate-glass in hinged frames bedded on to sponge rubber. The facia of the building is also

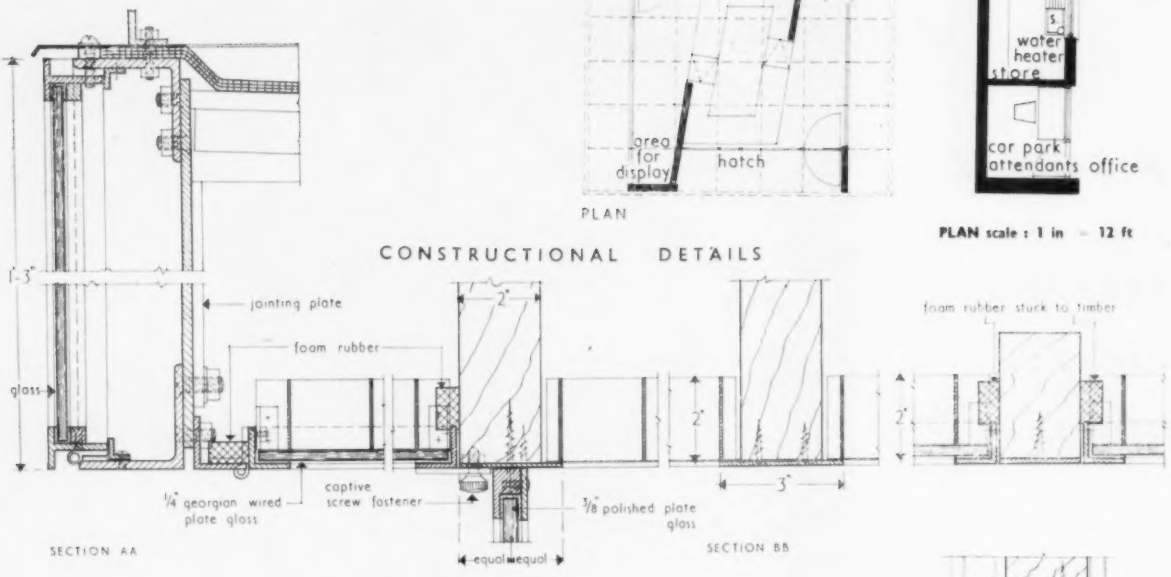


PLAN



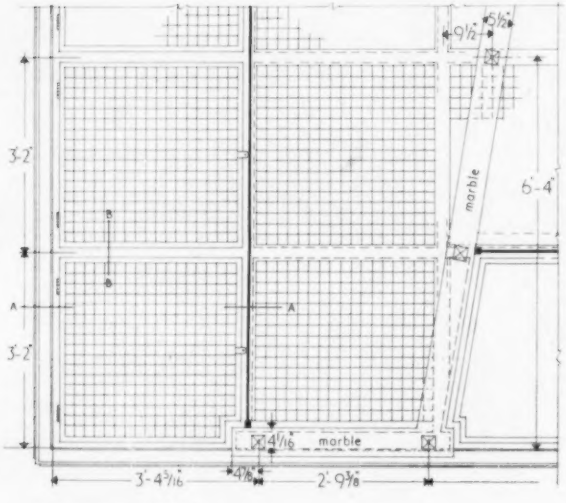
PLAN scale : 1 in = 12 ft

CONSTRUCTIONAL DETAILS

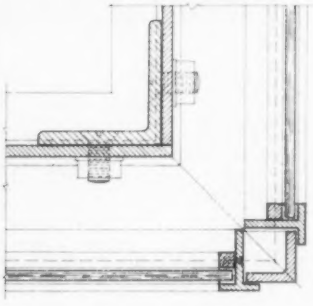


SECTION AA

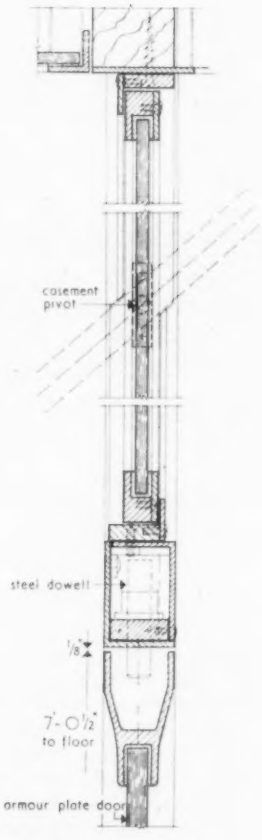
SECTION BB



PART PLAN OF SOFFITE



DETAIL AT CORNER OF FASCIA



SECTION THROUGH FANLIGHT AND HEAD OF DOOR

Kiosk, Liverpool St. Station

illuminated with fluorescent fittings behind ¼in plate-glass with lettering painted on the inside surface. All light fittings are easily accessible for maintenance.

The steel frame supports are faced with Belgian Fossil with the splayed bracing frames covered in pegboard and the remainder of the walls of the kiosk consist of ⅜in plate-glass in bronze frames. Two entrance doors are provided in armour-plate glass and the adjacent glass areas are provided with service hatches. Internally the joinery is in teak with waxed polished finish and the top of the counter is protected with ¼in plate-glass. The floor is in terrazzo divided into 3ft 2in squares by brass strips, which correspond with the panels of the egg crate ceiling.

The design as carried out provides a brilliantly-illuminated interior, the whole of which is visible from the outside.

DETAILS scale : Quarter Full Size and ⅜ in = 1 ft

General Contractor: Rolfe Limited

Asphalte paving : Val de Travers Asphalte Ltd. Belgian Fossil facing : J. Whitehead & Sons Ltd. Electrical installation : Gem Electrical Co. Ltd. Facia panels and name plates : Claude-General Neon Lights Ltd. Roofing felt : London Asphalte & Felt Roofing Co. Ltd. Steel Structure, bronze work, eggcrating, glazing : The Wessex Guild Ltd. Terrazzo flooring : Great Metropolitan Flooring Co. Ltd.

Frozen pipes again

THE annual deluge of complaints against the failure of the Building Industry and its professional advisers to anticipate the ravages which may be caused by frost to so many of our buildings, both old and of recent construction, have appeared in the press. The industry may benefit a little through the work it provides and the movement of stocks at the plumber merchants, who supply the necessary replacements, but on the whole the havoc caused makes such heavy demands on available labour that it is an interruption of the normal programme of all work of those builders who undertake repair and jobbing work. The inconvenience to the occupiers of buildings is enormous. Thus against any small benefits there is an extremely heavy cost and, much more serious, a loss of goodwill and reputation by all associated with building.

Other countries do not appear to suffer and it would seem that many of the troubles are due to foolish economies in first costs which subsequently incur very high maintenance bills. The most astounding point, to which attention is seldom drawn, is that once a particular trouble has arisen in a plumbing system it is so often merely repaired and reinstated in the same and equally vulnerable condition as before, with little or no action being taken to alter pipe runs, and thus avoid recurrences. It is so often far cheaper to move a pipe to a reasonably safe position than to pay for the repair of two or more frost bursts and the consequent making good of decorations.

I recently heard a complaint from a householder that following a serious trouble in 1954 he asked his builder to take the steps he considered necessary to prevent a recurrence and paid a considerable bill for what was done, only to have an even more serious disaster this year. When the builder arrived to see what had happened, he admitted that he had lagged the tank and the visible pipe runs but had omitted to lag the two most vulnerable points where pipes were immediately under the tiles at the eaves and the junction two slopes of the mansard roof because in his own words he 'could not reach them'. Apparently no effort had been made to lift tiles from the outside, apply lagging and replace the tiles, which might well have avoided most of the trouble. Nor had any suggestion been made to the client that if the rising main had been taken up in a less exposed position, which would have been quite simple, the probability of subsequent failure would have been completely eliminated and the cost probably would have been less.

A report just issued, made by the London School of Hygiene and Tropical Medicine, on an investigation into burst pipes on an L.C.C. estate at Oxhey in 1954, makes interesting reading. The report suggests that the systems were well designed and soundly constructed so that it is necessary to seek other causes for the bursts which, in a high proportion of cases, were due to copper joints pulling apart and not to the splitting of the pipes. It suggests that most of the failures were in the bathrooms near the external walls and that the bathrooms facing north or north-east were especially vulnerable. What is not clear from the report is whether the pipes which failed were fixed touching the outside walls; nor am I clear as to the thickness of the walls themselves. I have found cases in adjoining houses in which pipes fixed touching the walls, and even worse chased into outside walls and subsequently plastered over, froze, while similarly placed pipes fixed 1 in. clear of the wall or fixed on pipe boards attached to the walls have not frozen.

In support of my suggestion on this subject in the issue of this paper for February, 1954, that the basic troubles from which we suffer in this country, as compared to many others, is an insufficiency of heat in the houses and a lack of adequate precautions against draughts, the report on the Oxhey houses says that 80 of the sample of 98 houses examined which had burst pipes were unoccupied during the day. The report says that only one tenant used a heater to prevent freezing. If the tenants had been owners who had to pay for the cost of repairs I feel that more heaters would have been used. In Local Authority houses there are normally only very limited facilities provided with which to keep upper parts of houses warm, even if tenants are prepared to consume their own fuel, as bathrooms are usually without heated towel-rails, there are no electric or gas points, except those connected to water heaters and to provide the lighting. Even if bathroom doors are left open there is insufficient heat in, or means of heating, landings, halls and staircases from which warm air might move to keep up the bathroom air temperature in the face of a large area of permanent ventilation (as required by the Byelaws) aided by a good draught from ill-fitting external doors and windows. One can but guess that all the bathrooms which were so cold as to allow pipes therein to freeze had permanent ventilation by means of air-bricks and gratings, probably exposed to the north or east, through which the cold winds penetrated. This supports the doubt I have always expressed that permanent ventilation by such means is primitive.

The report says that of the same 98 houses only two tenants had lagged their pipes, which presumably means the owners had not lagged them at all, in spite of the statement that the systems were well designed and constructed.

It cannot be economic to build houses to so low a comfort level that every time there are a few degrees of frost it costs £10 to £20 to repair the plumbing and redecorate rooms. Is much of this trouble the result of the Local Authorities, aided by the Ministry of Housing which sanctions loans, cutting first costs to a minimum knowing that the ratepayers will meet all subsequent bills which arise because of the inadequate first provisions? The cost of repairs varies from house to house, depending on its design, its construction, its equipment and the quality of workmanship and I feel convinced that a greater price at the start, so that a good job can be done, would almost always benefit the ratepayers over the years. I doubt very much if most Authorities have sufficiently accurate detailed accounts of maintenance costs to be able to say to their architects "from experience do this or don't do that because it is cheaper or more costly in maintenance."

If, as the report indicated, many Local Authority houses are likely to be left unoccupied for long periods in winter-time more precautions against frost seem to be necessary by the installation of more lagging and similar protection, better placed pipe runs and more and better opportunities to maintain reasonable temperatures in the houses when they are left unoccupied for many hours. It is probable that if the houses are frequently unoccupied in the daytime the tenants are probably earning enough to pay for any extra heating necessary to maintain a reasonable temperature, if the facilities to do so were available.

I notice there are still many frozen waste pipes and even soil pipes. Why are they not put inside buildings in the first instance in which positions dripping taps and urinals would be less effective as trouble makers? The first serious frost of this winter put almost the whole of the sanitary system of a large and fairly recently constructed block out of commission because the waste and soil pipes, which were on the outside on the north and east walls of the building, froze causing inconvenience to most of the 300 occupants. Only a few w.c.s worked and these were in internal and artificially ventilated rooms, the waste and soil pipes from

which were in a duct in the centre of the building. The additional first cost of installing pipes within buildings is relatively small and, in spite of some sanitary authorities' opinion, quite hygienic.

Some two years ago in Cambridge, I am told that a document was distributed to householders on the subject of frost precautions. It would be edifying to know how many householders took advantage of the advice and whether the distribution of advice in fact reduced frost damage in the area. The Metropolitan Water Board have recently been spending money on advertisement space on London Underground Railway Stations offering their advice on frost precautions but it does not appear to have been very effective, judging by the number of people I have met in the area who have been in trouble during the last month.

In February, 1954, I mentioned that the Ministry of Health Model Water Byelaws (Series XXI) requires every water fitting laid or fixed in such a position as to render it liable to damage by frost to be reasonably protected. I have no idea how widely this clause has been adopted or whether any real efforts have been made to enforce the requirements where it operates. It would seem that it is perhaps time that there was a measure of enforcement as a national economy of plumbers' time and material and of water lost through burst pipes.

It might also be useful if building societies and others who lend money on buildings would insist on proper precautions being taken, or at least point out to prospective purchasers that there are risks in the building on which they propose to lend money, so that the future occupiers are at least warned about possibilities which their lack of knowledge would probably not make clear to them. I have yet to see a property surveyor's report which indicates that the plumbing is so installed as to be a serious frost risk.

DUTCH UNCLE

Industrial Notes

● Allied Ironfounders Ltd. have made yet another contribution towards the solution of Britain's housing problems. First, in 1953, came the film of the "Stockton Test," in which the company gave a practical demonstration of how old property could be modernised.

Then, in 1954, the film "There's a job to be done" explained the working of the new Housing Act, and the book "Improvements and Conversions" giving advice on the use of "improvement grants." This year, 1956, a third film on housing entitled "None to trouble nobody" offers an answer to another housing question — "How to house able-bodied old people?" This new film describes different types of housing arrangements for old people in Britain. Mention is made of schemes developed by charitable organisations such as the Guinness Trust, of historic almshouses, of institutions run by local authorities, of bungalow accommodation on L.C.C. housing estates and also of the "Homes for Women" scheme organised by the W.V.S. and the local authorities. In the film the scheme is shown in action at Salford and Liverpool, where large, old-fashioned houses have been bought cheaply by the local authorities, and converted at minimum cost into bed-sitting-room houses for elderly women. Modern fire-places, kitchenettes and bathrooms have also been installed. The film was made for Allied Ironfounders Ltd. by the Film Producers' Guild, producer Harold Purcell. Copies of the film, either 35 mm. or 16 mm. will be sent free to local authorities and all organisations interested in the welfare of the old who wish to arrange a showing of the film. Those interested should apply to Allied Ironfounders Ltd., 28, Brook Street, W.1. Gro. 8941. Mr. W. T. W. Wren, Managing Director, said t a preview of the film that they accepted the "responsibility of leadership"; the three films produced by the company are sufficient evidence of that. What a pleasure it is to see a film made by a commercial body and not have its name mentioned once in the dialogue.

● It is announced by the Northern Pipe Association that their members have agreed to keep their prices for deliveries of salt-glazed pipes in England and Wales at existing levels until the 30th June, 1956, at least.

● Mr. Frederic Lasserre, B.Arch., M.R.A.I.C., Director of the School of Architecture of the University of British Columbia, Canada, will undertake a lecture tour of the British Isles and Eire during April, 1956. Further details regarding the lectures are contained in a folder that will be issued shortly by the British Columbia Lumber Manufacturers Association, Office of the Commercial Counsellor (Timber), Canada House, London, S.W.1.

● The British Colour Council has been invited to show at the fourth Factory Equipment Exhibition to be held at Earls Court, April 9th-14th, 1956.

● A technical development which will shortly be incorporated in the entire range of "Goodenough" Pumps, takes the form of a special double-ended carbon seal which eliminates the risk of pump breakdown due to leakage of the pumping liquid into the power unit.

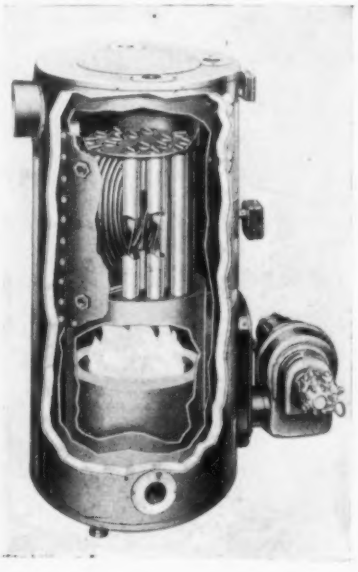
● "Limpet" sheet, a panel board made basically of asbestos, is now available ready-coated in a variety of colours. It is a material of special characteristics, being stable, waterproof, unaffected by humidity and temperature, and is classified by the D.S.I.R. as being of "Very Low Inflammability." Its fire-resisting properties meet the requirements of local authorities and insurance companies. Hitherto it has been supplied unpainted or with a green mottle finish. A new range of painted sheets, which are produced in thicknesses of 2 mm. and 3 mm., and in standard sizes up to 20 ft. by 5 ft., is coated with an "Epikote" resin-based paint which possesses a high degree of adhesion, flexibility and chemical resistance. "Limpet" sheet is made by J. W. Roberts Ltd., Armley, Leeds.

● Mr. Gerrard C. Snyman, who relinquished his position as Managing Director of Celotex Limited as recently as April, 1955, to become Vice-President of Celotex Corporation, U.S.A., has been re-elected Managing Director of Celotex Limited.

● Fibreglass Limited announce the acquisition of additional factory premises at Valley Road, Birkenhead. Provision is being made at the new works for the production of certain Fibreglass wool, tissue and continuous filament materials and the first manufacturing unit will be installed by the end of this year, employing a labour force of approximately 120.

● Mr. Sam Alper, the Managing Director of Alperson Products Ltd., of Newmarket, England, is going on a 40-day round the world flight visiting potential distributors for both domestic and commercial caravans in seven different countries.

● Following long term research the Liverpool Borax Co. Ltd. announce a step forward in Ritolastic Bituminous Based Protective Coatings. Whilst still retaining a high percentage of real bitumen, the Ritolastic coloured coatings are now reinforced with a complex system of modern plastics.



The "Oilheat" boiler burner unit is made by Henry Wilson & Co. Ltd. of Cornhill Works, Kirkby Trading Estate, Liverpool, under licence from the Aldritch Co. of Wyoming, U.S.A., in six sizes ranging from 118,000 to 808,000 B.T.U. ratings.

CURRENT MARKET PRICES (LONDON)

(These prices apply to material purchased in the quantities named or otherwise as might be expected) for a new building of moderate size).

4th March, 1956*

AGGREGATES AND SAND

1½ inch—all in—ballast	23/8	Yard cube
¾ inch do. do.	26/10	delivered
¾ inch screened shingle	21/1	(in five yard
⅜ inch do. do.	22/3	loads or
¼ inch granite chippings	45/–	more)
Sharp washed sand	24/2	
Pit sand	21/9	
Building sand	21/9	
Broken brick	18/6	
1½ inch shingle	22/–	
Cartage of muck	8/–	

BUILDING MATERIALS AS DESCRIBED, CENTRAL LONDON

CEMENTS packed in paper bags	Per ton
Portland in 6 ton lots	101/6
Do., from 1 ton to 5 tons 19 cwt. do	113/6
Do., Rapid hardening (6 ton lots)	112/–
Do. (but 1 ton to 5 ton 19 cwt.)	124/–
Cement "Aquacrete" (do.)	146/–
Do., "417" or "Polar" (do.)	146/–
Do., "White" 1 ton (lots)	262/–

LIME—				
		132/– (1 ton loads)	deliv'd	
Hydrated	including	129/6 (2/3	do.)	do.
and	paper	119/6 (4/5	do.)	do.
Ground	bags	117/6 (6	do.)	do.

PLASTER—	
Keenes, coarse, pink (2 ton lots)	198/9 ton
Do. do. white (do.)	204/3 do.
Sirapite, do. (2 ton to 3 ton 19 cwt lots)	147/3 do.
Do. finish (do.)	155/3 do.
Hardwall, do (do.)	158/9 do.
Plaster, coarse, pink (do.)	145/– do.
Do. do. white (do.)	153/3 do.
⅜in Plaster baseboard (25 to 75 yards)	3/– Yard Sup.
⅜in Do. (150 to 299 yards)	2/8 do.
3½in Jute scrim (100 yd roll)	8/8 each
Cow hair (under 3 cwt)	97/6 cwt

FIRECLAY—	
Stourbridge, loose (1 ton lots)	168/9 ton delivered
Fire cement	12/3 14 lb

BRICKS

BACKING BRICKS (in truck loads)—		
Flettons	113/– per 1,000	delivered
Do. Keyed	115/–	do.
Do. bullnose	133/–	do.
Blue wirecuts	510/6	do.
White	192/–	do.
Southwater engineering (No. 1)	379/–	do.
Firebricks—2½ inch	72/6 per 100	delivered
Do. —3 inch	89/6	do.

STOCK BRICKS—	
Mild stocks	181/6 per 1,000 at Works
Second, do.	216/– do.
First, do.	237/– do.
Add for delivery—approx. 45/– per 1,000 in lorry loads	

FACINGS (ex truck or lorry)—		
Rustics	138/– per 1,000	delivered
White	210/–	do.
Blue pressed, 2⅝in	562/–	do.
Do. bullnose	576/–	do.
Reds (Multi sand faced)	310/–	do.
White glazed stretchers	1504/–	do.
Do. headers	1480/6	do.
Do. bullnose	1880/–	do.
Do. double stretchers	1997/6	do.
Do. double headers	1821/3	do.
Breeze fixing bricks	29/– per 100	
Fire tiles and lumps	33/– foot cube	
Wall ties—8″ × ¾″ × $\frac{3}{16}$″, black	71/3 per cwt	
Cement mortar (1 : 3) hand-made	92/– yard cube	

BRICKLAYERS' SUNDRIES—				
AIR BRICKS	9 × 3in	9 × 6in	9 × 9in	12 × 9in
Iron each	2/1	3/4	5/–	6/8
Galvanized do. do.	3/6	5/10	8/8	11/7
Terra Cotta do.	1/3	2/7	5/6	10/10
Chimney pots, Terra	1ft	2ft	3ft	4ft
Cotta (11 to 25) do.	7/3	12/8	28/9	49/9

PARTITIONS—			
18in × 9in Blocks keyed for plastering	2in	2½in	3in
Per yard super in 6 ton lots			
In solid clinker including any half blocks	3/9	4/4	5/3
In cellular clinker blocks	3/11	4/7	5/3
In hollow clay blocks	4/4	4/7	5/4
Clinker blocks in small quantity	5/7	6/7	7/11

Intermediate quantities in all types may be had at intermediate prices.
Smooth in lieu of keyed faces extra cost per side 3d. per yd super

SINKS—			
Fireclay white glazed in and out—standard quality	24 × 18in	30 × 18in	30 × 20in
London pattern, no overflow, 6in deep	69/6	86/6	96/–
Belfast, plain edge, 10in deep	83/3	137/6	185/6

FLUE, LININGS, PLAIN, CIRCULAR—	Foot lineal Straight	Each Bends
9in diameter	3/11	11/9
10in do.	4/11	14/9
12in do.	9/5	28/3
9in diameter, beaded end, 12in high		5/4

FLUE PIPES AND FITTINGS—	4in	5in	6in
Heavy asbestos type, 6ft length	16/6	22/–	28/–
Do. 3ft length	8/3	11/–	14/–
Do. bends	6/2	7/10	9/4
Light asbestos type, 6ft length	13/6	17/–	22/–
Do. 3ft length	6/9	8/6	11/–
Bends	4/10	6/1	7/5
Baffler	13/4	15/10	16/8

DRAINAGE GOODS

GLAZED STONEWARE STANDARD LIST

ORDINARY TYPE—EACH	4in	6in	9in
Pipes in 2 feet lengths	1/8	2/6	4/6
Bends	2/6	3/9	10/1½
Junctions (4in on 4in, 6in on 6in, 9in on 9in	4/2	6/3	13/6
Gullies with 4in outlets	6/3	6/10½	11/3
4in horizontal inlets	2/–	3/–	5/–
4in vertical ditto	3/–	4/–	7/–
Black iron grids	9*d*	1/5	2/9

Adjustment to Current Cost

	2 ton lots or more	Less than 2 ton lots
	100 pieces or more	Under 100 pieces
"Best" pipes and fittings. Percentages to add	85%	117½% 130%

Further percentages to be independently added in respect of: British Standard pipes, etc., 10. "Best" Tested pipes, 37½. British Standard Tested, 47½.

IRON DRAINAGE GOODS— Each	4in	6in
Cast iron pipes, 9 feet long	71/3	105/–
Do. 6 feet do.	51/2	79/10
Do. 4 feet do.	39/8	62/–
Do. 2 feet do.	24/3	36/10
Short bend	17/–	44/4
Junction	29/7	61/10

* THIS DATE ALSO APPLIES TO CURRENT MEASURED RATES.

CURRENT MARKET PRICES (Continued)

DRAINAGE GOODS—Continued

GULLEY PARTS—	4in	6in	
Traps, high level, invert	29/7	80/1	each
Inlet, bellmouth pattern	15/8	31/2	do.
Do. with one vertical branch	27/2	50/9	do.
Do. with two do.	73/8	107/2	do.
Extra for Sealed cover	9/6	12/3	do.

RAINWATER SHOES	4in	6in	
With vertical inlet and rebated top	39/3	78/2	each
Extension piece, 6in high	20/5	20/5	do.
Flat loose coated grating	4/–	4/–	do.
Loose solid coated cover	5/5	5/5	do.

MANHOLE CHANNELS, WHITE GLAZED— Each	4in	6in	9in
Straight, 2 feet long	16/6	24/3	40/9
Taper, ditto	27/6	27/6	41/9
Bends, main, half section	32/–	46/3	76/–
Ditto, branch, ditto	19/9	27/6	—
Ditto, ditto, three quarters, ditto	27/6	44/–	—
Junctions, single	26/6	46/3	—
Ditto, double	36/3	62/9	—

BROWN GLAZED CHANNELS— Based on standard list (less than 100 pieces)	4in	6in	9in
Half-round main channel (2ft long)	2/9	4/2	7/4
Extra for stop ends	2/9	4/2	7/4
Extra for outlets	5/5	8/2	—
Channel bends with splayed ends	8/2	12/3	—
Three-quarter section do.	10/10	16/4	—

MANHOLE COVERS—	Black
24 × 18in Light foot traffic	29/6 each
Do. Strong do.	40/– do.
Do. Light car traffic	105/– do.
Do. Road traffic	160/– do.

SUNDRIES—	Galvanised
Manhole steps	8/2 each
4in Mica valve fresh air inlets (L.C.C.)	28/– do.
Plumber's hemp	7/3 per lb.
Gaskin, caulking	1/5½ do.
Canvas backed hair felt, 4in wide	9d per ft run

ROOFING MATERIALS

WELSH SLATES (delivered)—

Sizes in inches	Full Loads per 1,000	Quantity 100 to 499 per 100	1 to 99 per doz.
22 × 11	1920/–	262/–	34/6
20 × 10	1700/–	230/–	20/3
18 × 10	1240/–	163/–	21/6
16 × 10	1020/–	132/2	17/6
14 × 9	780/–	90/9	12/–
14 × 4½	347/–	40/3	5/3

TILES (Brosley and Staffordshire)—	per 1,000	per 100
10½" × 6½" Machine made	280/–	39/–
Do., hand made, sand faced	350/–	46/9
Hips, valleys and angles	31/– per dozen	
	Per 1,000	Per 100
Plain concrete tiles	177/–	19/6

Sheeting asbestos corrugated, 6in pitch	7/4 ¾-yard super
4½in × 16 gauge, drive screws (galvanized)	17/– gross
7½in × ⅜ hook bolts and nuts (do.)	51/6 do.
Washers, round, flat galvanized	4/9 do.
Do. do. bituminous	2/– do.

ROOFING FELT—	
Sanded bitumen felt (55lb)	1/– Yard Super
Ditto, but 75lb in weight	1/6 do.
Inodorous felt, best quality	3/– do.
Ditto, second quality	2/4 do.
Underlining	1/8 do.
Sheathing	1/8 do.
Galvanized felting nails	2/– lb.

PRECAST CONCRETE LINTOLS—

1 : 2 : 4—¾in material, finished with fair exposed faces, including all form-work, and one ½in diameter mild steel rod reinforcement to each 4½in in width.

Per foot lineal delivered to site

4½in × 6in	9in × 6in	9in × 9in	13½in × 9in	18in × 9in
4/–	6/–	7/8	9/6	11/6

STONE

PER FOOT CUBE in random blocks not exceeding 20ft cube in each, free on rail London.
Monks Park 8/– St. Aldhelm 9/–.
Portland brown Whitbed 8/3½
Other stone but delivered to sites. Doulting 8/9, Beer 8/3

TIMBER

Softwood—sawn—random lengths.

	Per Standard	Per cubic foot
Carcassing quality	£105	12/8
Joinery quality	£120 and up	13/4

Plain edged unsorted flooring, per square	¾in	1in	1¼in	1½in
	90/–	110/–	138/–	165/–

½in insulating wall board (250 yards) 4/3 yard super
Larger quantities cost less, and smaller quantities more.

SUNDRIES—	Dia.	3in	6in	9in
Black hexagon bolts, nuts and washers. Each	½in	7d	10d	1/–
	⅝in	11d	1/2	1/6
	¾in	1/3	1/8	2/–
Sashline, hemp, good quality Per Yard Run		No. 6 9d	No. 8 1/1	No.10 1/4
Floor brads			7½/– per cwt	
Cut Clasp Nails			73/– per cwt	
Steel ordinary screws	1" No. 8	3/–	2" No. 8 5/2	per gross
Brass, ditto	Do.	10/2	Do. 17/10	

HARDWOOD—

	Per ft super	1in	Per ft cube
Prime	¾in	2/4	28/–
African mahogany		2/6	28/–
Honduras ditto		4/–	50/–
Portuguese Guinea ditto	3/3	4/–	50/–
African walnut	3/1	3/3	36/–
Australian ditto	2/5	2/7	29/–
English oak	5/6	5/10	65/–
Yugoslavian ditto	4/3	4/6	50/–
Burma and Siam Teak	3/4	3/7	40/–
	5/–	5/9	65/–

DOORS.—STANDARD TYPE SOFTWOOD

Each in quantities 12 or more.
1⅜in finish, 4 horizontal panels moulded both sides 6ft 6in high.
2′ 3″ wide 41/–
2′ 6″ do. 42/3
2′ 9″ do. 44/6

FLUSH DOORS, 1⅜in thick, ply faced both sides, lipped edge. All 6ft 6in high. 2′ 3″ wide 47/6; 2′ 6″ do. 49/6	2in (nominal) as last but upper panel prepared for glazing 2′ 6″ wide 59/–; 2′ 9″ do. 62/–
	2in (ditto) all as above but in 3 panels. 2′ 6″ wide 55/9; 2′ 9″ do. 58/3
PANELLED DOORS: see B.S. 459—Part 1.	2in (ditto) all as above but in 2 panels. 2′ 6″ wide 51/3; 2′ 9″ do. 53/6
FLUSH DOORS: see B.S. 459—Part 2.	

IRONMONGERY

	2in	3in	4in	5in	6in
Cast iron Butts, per pair	1/1	1/9	2/9	5/1	7/3
Hinges, spring, single action regulating, japanned, each	—	8/–	12/–	15/3	21/–
Do. but double action spring only, each	—	16/6	21/–	25/9	33/9
Do. blank only, each	—	8/9	12/–	17/9	21/6

CURRENT MARKET PRICES *(Continued)*

IRONMONGERY—*Continued*

	12in	18in	24in	30in	36in
Tee hinges, (japanned) per pair	2/–	3/10	—	—	—
Do. but stronger, per pair	3/4	6/1	8/3	—	—
Hook and Ride hinges, per pair	—	—	13/4	16/3	24/10

BOLTS—each—	3in	4in	6in	8in	10in	12in
Cabinet, barrel, straight or necked	1/4	1/7	2/1	—	—	—
Square spring, with brass knob	1/4	1/7	2/1	—	—	—
Tower bolts	—	1/8	2/5	3/3	4/–	4/10
Barrel bolts	—	2/9	3/11	5/2	6/7	8/1
Add to Tower or Barrel bolts if necked	—	½*d*	¾*d*	1*d*	1*d*	1*d*

LOCKS—each—			
Rim lock, 2 lever, wrot case	Brass furniture		3/6
brass bolt and bushing	12/9	or Bakelite do.	3/3
		Bakelite finger-plates	2/4
Mortice lock, 2 lever, bushed	12/–	Brass furniture	8/9
		or Bakelite do.	3/10
Cylinder latches, japanned case			16/–
Brass sash fastener		each	5/–
Casement fasteners (malleable)		do.	1/6
Do. stays (do.)		do.	2/–
Axle pulleys (brass face, iron wheel)		do.	4/7
Do. as last, but with brass wheel, 1¾in		do.	5/9
Sash line, No. 8 Anchor yellow label		per yard	1/–

METAL GOODS

British rolled steel joists ex mills to basis sections on site (6in × 5in, 8in × 5in or 6in, and 10in or 12in × 6in)	£34/0/0	per ton
Extra cost over basis for following sections—		
9in or 18in×7in, 14in×5½in, 15in×5in, 14in or 15in or 16in or 18in×6in, 20in ×6½in, 20in×7½in, 10in or 12in or 14in or 18in×8in	10/–	per ton
5in×4½in, 7in×3½in, 13×5in	15/–	do.
12in×5in, 22in×7in	20/–	do.
6in×4½in, 7in or 8in or 9in×4in, 10in×5in	25/–	do.
4in×3in, 10in×4½in	30/–	do.
5in×2½in, 5in×3in	35/–	do.
6in×3in, 24in×7½in	40/–	do.
3in×3in	50/–	do.
4¾in×1¾in	65/–	do.
3in×1½in, 4in×1¾in	70/–	do.
⅝ mild steel reinforcing rods ex mill d/d	£35/10/0	do.
Extras per ton		
⅛in diameter in size	59/6	per ton
1/16in	72/–	do.
3/16in	92/–	do.
1/32in	132/–	do.
¼in	172/–	do.
3/32in	192/–	do.
Extras for length		
5ft to 3ft	7/6	do.
3ft to 2ft	15/–	do.
2ft	22/6	do.
40ft to 45ft	15/–	do.
45ft to 50ft	22/5	do.
Bolts and Nuts	90/–	per cwt
Trench covering, including trays 1¾in deep and rebated frames, 9in wide	20/6	foot run
Do., but 12in wide	22/–	do.
Do., but 14in wide	24/–	do.
Do., but 18in wide	31/6	do.

METAL SUNDRIES

Cast iron pavement light filled with 4in×3in glass lenses	32/–	per ft super
¼in wrought iron plate door in four panels with stiles and rails on both sides	50/–	do.
20 gauge galvanized iron trunking and straps	5/6	do.
24 gauge galvanized Tallboy 6ft high 9in diameter with 9in×12in base	57/6	each

CHAIN LINK FENCING—

In 25 yards lineal rolls inclusive of line wire,

2in mesh	Height in inches— 36	42	48	60	72
10½ wire gauge	98/6	115/–	131/6	164/–	197/–
12½ do.	69/3	80/9	92/6	115/6	138/9
14½ do.	49/6	57/9	66/–	82/6	99/–

DOUBLE SOOT DOORS AND FRAMES—

Fitted with brass turnbuckle and cast key	9in×9in 19/–	12in×9in 28/–	14in×12in 48/6

SLIDING DOORS, GATES AND PARTITIONS—

Factory sliding doors in two leaves containing about 100 square feet with mild steel angle frames covered with 24 gauge corrugated galvanized sheeting and including hanging tubular track and gear complete	15/6	foot super
Factory entrance gates with mild steel frames clad with 2in mesh chain link complete	12/–	do.
Steel partitioning, glazed (rough cast) and stove enamelled	18/6	do.

STEEL ROOF LIGHTS—

Lanterns with vertical sides, and hipped roof glazed with ¼in cast glass and lead flashed	14/–	foot super
Skylights of similar construction (27ft super)	20/–	do.

HIGH GRADE DOMESTIC BOILERS

Coke Fed. Performance 20 to 40 gallons raised from 40 °F to 140 °F per hour as under.

TYPE		£	s.	d
20 gallons per hour 15in wide, 23in high	Plain cast iron black finish	9	0	0
	Ditto, in cream mottle finish including side jackets	13	0	0
25 gallons per hour 19in wide, 22in high	In cast iron as before and base plate	11	10	0
	Ditto in cream mottle with side jackets and base	16	17	0
40 gallons per hour 22in wide, 23in high	in cast iron, etc., as last ditto	18	5	0
	Ditto in cream mottle all as last ditto	24	13	0

GAS, WATER AND STEAM TUBES

(From Standard-List)

Internal Diameter—	¼in & ⅜in	½in	¾in	1in	1¼in	1½in	2in
Tubes per ft	4*d*	4½*d*	5½*d*	6¾*d*	9½*d*	1/1	1/4½	1/10
Bends each	8*d*	9*d*	11*d*	1/2	1/7½	2/7½	3/2	5/2
Elbows, sq. do.	10*d*	11*d*	1/1	1/3	1/6	2/2	2/7	4/3
Do., round do.	11*d*	1/–	1/2	1/5	1/8	2/4	2/10	4/8
Tees do.	1/–	1/1	1/3	1/7	1/10	2/6	3/1	5/1
Crosses do.	2/2	2/4	2/9	3/3	4/1	5/6	6/7	10/6
Backnuts do.	2*d*	2*d*	3*d*	3½*d*	5*d*	6*d*	8*d*	1/1
Sockets do.	3*d*	3*d*	4*d*	5*d*	6*d*	8*d*	10½*d*	1/3
Sockets, dimin. do.	4*d*	5*d*	6*d*	7*d*	9*d*	1/–	1/4	2/–

PERCENTAGES ON OR OFF ABOVE

In quantity and in random lengths.

TUBE—			
Class A (light)	—12½%	Black	+7½% Galvanized
Class B (medium)	—2½%	Do.	+18½% Do.
Class C (heavy)	+12%	Do.	+36% Do.
FITTINGS—			
Lightweight	+20%	Black	+35% Galvanized
Heavy	+28%	Black	+45% Do.

RAINWATER GOODS (Painted or Unpainted)

In consignments of 5 cwts. and over

From Standard List

Pipe:		2in	3in	4in	5in	6in
6ft lengths	each	12/10	14/5	18/11	24/8	31/6
3ft do.	do.	7/–	7/9	10/–	13/1	16/6
Shoe, ordinary	do.	2/7	3/10	5/7	9/5	12/11
Bend	do.	3/1	4/4	6/3	11/3	14/7
Branch, single	do.	4/6	6/7	9/3	14/7	22/6
Offset, 4½in	do.	3/9	5/3	7/9	12/11	17/–
Do. 9in	do.	4/11	6/6	9/8	15/3	19/3
H.R. gutter, 6ft. length	do.	—	6/–	8/5	10/4	13/10
Angle or nozzle	do.	—	2/6	3/1	3/9	5/4
Stop end	do.	—	9*d*	1/1	1/6	1/9

Above plus 7½%

CURRENT MARKET PRICES (Continued)

PLASTERING MATERIALS

Sand, lime, cement and various plasters are previously included under those heads—

Metal lathing (⅜″×24G) (20 yards)	3/8½ sq. yard
Plaster baseboard ⅜″ (300 to 599 yards)	2/6 do.
Lath nails, galvanized	1/2 lb.
White glazed tiles (6″×6″×¼″) small quantity	18/6 sq. yard
Do. rounded on one edge small quantity	22/6 do.
Do. on two adjoining edges small quantity	27/– do.

PLUMBER'S GOODS

4 lb. lead sheet (in 1-ton lots)	158/9 per cwt
Lead water pipe in coils (do.)	160/– do.
Plumber's solder	4/1 lb.
Copper tacks	6/9 do.

IRON SOIL AND WASTE PIPE. (5cwt lots and up)

each	2in	3in	3½in	4in
3/16in Medium pipe, 6ft length	14/6	17/2	19/3	21/11
Ditto, 4ft length	10/5	12/2	13/7	15/5
Bends	5/4	6/6	8/1	9/1
Ditto, with oval door	17/4	18/6	21/1	24/7
Junction, single	6/6	9/8	11/3	13/3
Ditto, with oval door	18/6	21/8	24/3	26/3
Swan necks, 4½in	6/6	10/3	11/9	13/9
Ditto, 9in	8/8	11/9	13/9	16/1
Holderbat, 2¼in projection	4/11	5/1	5/4	5/6

Above plus 7½%

GALVANIZED CISTERNS, TANKS AND CYLINDERS—(Less than four)

each gallons	Nominal capacity			
CISTERNS— Bends over tops and corner plates. Riveted or welded	100	150	200	300
14 gauge	180/–	243/–	296/–	424/–
12 gauge	208/–	277/–	328/–	456/–
¼in plate	246/–	310/–	372/–	522/–
HOT WATER TANKS	20	25	30	40
Riveted and with handhole and ring.				
12 gauge	124/–	137/–	150/–	180/–
¼in plate	137/3	151/–	163/–	199/3
HOT WATER CYLINDERS—	20	25	33	39
Riveted, with handhole and ring.				
12 gauge	160/–	176/–	189/–	204/6
¼in plate	177/–	195/6	214/–	226/6

PLUMBER'S BRASSWORK, etc.

Each	½in	¾in	1in	1¼in
Boiler screws, single nut	1/7	2/1	3/5	5/1
Ditto, double nut	2/2	2/10	4/8	6/10
Cap and lining	1/2	1/7	2/–	2/3
Plumber's unions	2/7	3/2	4/6	8/–
Ball valves, screwed iron	15/6	23/3	—	—
Ditto, fly nut and union	16/9	24/9	—	—
Bib valves, crutch top screwed iron	10/–	14/6	—	—
Ditto, but screwed boss	11/3	16/2	—	—
Stop valves, screwed iron	8/6	12/6	—	—
Ditto, screwed iron and union	10/6	15/8	27/–	—
Ditto, double union	11/3	16/6	31/–	—
Waste, plug chain and stay	—	—	8/–	9/–

	1¼in	1½in	2in	4in
Caps and screws	3/1	3/10	5/6	—
Sleeves, long	—	—	7/6	11/–
Ditto, short	—	3/9	4/3	10/6
Thimble	—	3/9	4/9	10/6
Full way gate valves, hot pressed	21/6	30/–	—	—

	1¼in	1½in	2in
Lead 7 lb P. trap	7/8	10/–	14/1
Ditto, S. trap	9/5	12/4	17/4
Lead 6 lb P. traps with 3 in seal	8/6	10/3	—
Ditto, but S. traps, ditto	10/7	12/11	—

Wire balloon guards, copper, 2in 3/1; 4in 3/4
Ditto, galvanized iron, 2in 1/11; 4in 2/1
Hair felt, 34in × 20in, 24 oz, 6/– sheet
Boss white jointing compound, 2/– lb
Gaskin, 1/5½ lb Hemp, 7/3 lb

COPPER TUBES—Extract from B.S. 659/1944—

Internal work (semi-hard). Nominal bore	Outside diameter inch	Gauge	Weight lb per ft	3 cwt lots Price per lb pence	Price per ft pence
½in	0·596	19	0·27	60½	16·34
¾in	0·846	19	0·39	58½	22·97
1in	1·112	18	0·62	57½	35·58
1¼in	1·362	18	0·76	56½	42·01
1½in	1·612	18	0·91	56½	51·65
2in	2·128	17	1·40	58½	81·73

CAPILLARY TYPE CONNECTIONS—
All ends copper to copper

Each	½in	¾in	1in	1¼in	1½in	2in
Straight	1/9	2/5½	3/10½	5/4	6/10	9/10
Bends	4/7	5/7½	8/1	11/0½	17/4	24/4
Tees	4/2½	4/11	7/10½	11/7	16/5½	24/4
Brackets (Brass)	2/5	2/10	3/4	—	—	—

GLASS

Per foot superficial	24oz	26oz	32oz
English, flat drawn sheet glass cut to sizes in squares	8¾d	11d	1/2¾

Figured rolled and cathedral, white, cut to sizes, in squares (⅛in)	10d Per foot super
Ditto, but in standard tints	1/5¾ do.
¼in Rolled, cut to size, in squares	10d do.
¼in or 3/16in rough cast ditto	1/1 do.
¼in ditto wired ditto	1/3¼ do.
Georgian wired ditto	1/3½ do.
Fluted (No. 4) ditto	1/4 do.
Reeded, (narrow, broad, cross and major) ditto	1/2 do.
Reedlyte (narrow and broad) ditto	1/2 do.
Spotlyte ditto	1/2 do.
¼in Calorex Cast ditto	1/3½ do.
Calorex Sheet (15oz)	6/6 do.
ditto. (21 oz)	9/– do.
Flashed Opal (15/18oz)	3/10 do.
Pot Opal (15/18oz)	3/9 do.

POLISHED PLATE GLASS (Tariff) Cut to sizes.
Ordinary substance 3/16in and ¼in thick.
Per Superficial foot.

	General Glazing
In plates not exceeding:	
2ft super in each	3/7
5ft ditto	4/5
45ft ditto (unless extra sizes)	5/1
100ft ditto (ditto)	5/6

Extra sizes, i.e., Plates exceeding 100 ft. super on 96in high or 160in one way or 96in both ways at higher prices.

DECORATING MATERIAL

	Price	Unit
Aluminium Paint	37/6	Gallon
Distemper, ceiling	35/–	Cwt
Distemper, washable	120/–	do.
Enamel	60/–	Gallon
Gold Metallic Paint	86/6	do.
Heat Resisting Paint	50/–	do.
Japan, black	23/6	do.
Knotting	40/–	do.
Linseed Oil	14/9	do.
Boiled, ditto	15/3	do.
Proprietary Paints (good class)—		
Finishing	47/–	do.
Priming	50/–	do.
Undercoat	53/–	do.
Paperhanger's Paste	34/6	Cwt
Petrifying liquid	8/9	Gallon
Putty	53/–	Cwt
Size	9/3	Firkin
Terebine	16/–	Gallon
Turpentine substitute	6/3	do.
Varnish, oak, copal inside use	33/–	do.
Ditto, ditto, outside use	38/–	do.
Ditto, white, eggshell, flat	44/6	do.
White lead mixed paint	70/–	do.
White lead	194/–	Cwt
Whiting	13/3	do.

The new modern store of Messrs. David Greig of Canterbury lit with Philips internal reflector lamps. Installation planned in collaboration with the Architects, Messrs. Robert Paine & Partners, Canterbury.

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(LD725C)

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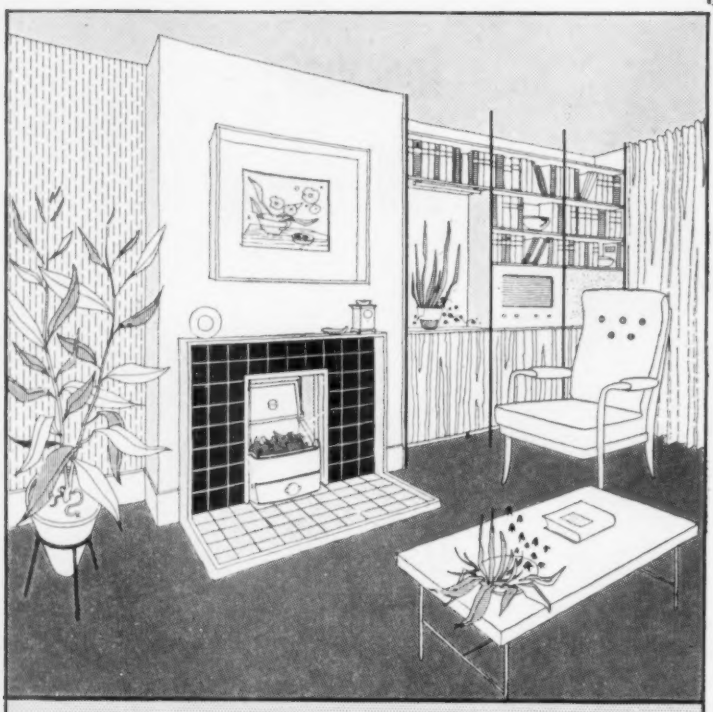
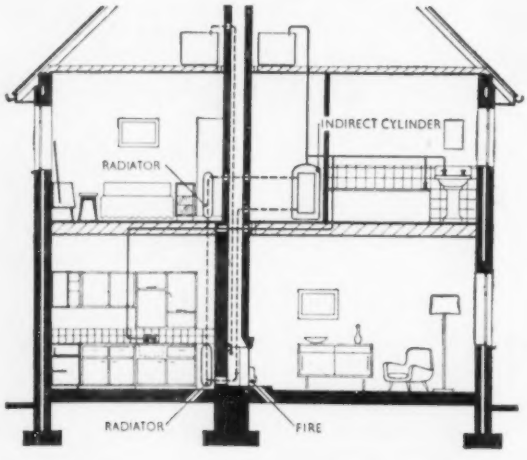


The No. 3 BROOK Fire

Continuous-burning fire with unusually high-powered boiler: a lot of heat for a moderate cost



THE BROOK FIRE DOES THREE THINGS AT ONCE

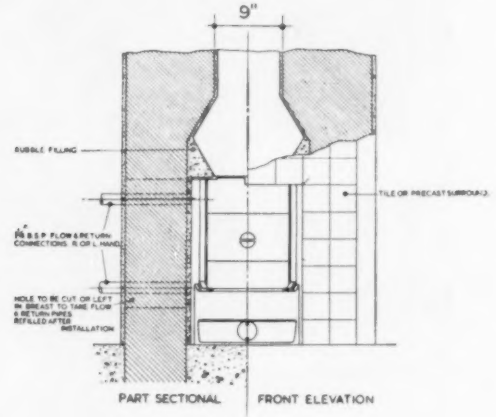
1. It's a cheerful open fire.
2. It supplies plenty of domestic hot water.
3. Provides background warmth by radiators, if required.

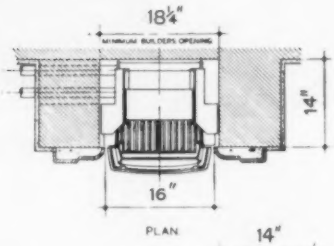
NOTES

This continuous-burning fire is not expensive, and it does a lot of work for a minimum of fuel. The room in which it is installed can be as large as 1,500 cu. ft. and the back boiler is decidedly more powerful than the usual boiler of this type: it heats 40 sq. ft. of radiation surface and a towel rail. Installation costs are moderate.

GOOD LOOKS

The Brook is a very simply-designed fire which looks well in almost any setting. Note the attractive neat front in vitreous enamel cast iron—which is easy to clean and very hard-wearing.



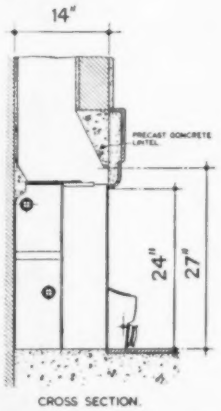


COLOURS

Cream Mottle or Black vitreous enamel, Alisheen Black, Bramble, Bronze or Copper.

STRUCTURAL OPENING (Minimum Dimensions)

Width	18¼ ins.
Depth	13½ ins.



For further details of the No. 3 Brook Fire write to the Housing Division of:

ALLIED IRONFOUNDERS LTD

Makers of cookers, boilers, fires and baths

28 Brook Street, London, W.1.

CURRENT MEASURED RATES (LONDON)

These apply to new work of normal character and some size. These rates are for time and materials only and carry 10 per cent in excess, so the appropriate essential on-costs should be added. The basis cost of material used in the calculation of these prices is taken from the foregoing tables which carried up to March, 1956.

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ESSENTIAL ON-COSTS

Fees payable to L.C.C. for District Surveyor:	
For new buildings of ordinary construction exceeding 5,000 cubic feet, for every 1,000 feet or part of same up to 1,000,000 cubic feet 1/6, together with an additional sum of £1/10/– ..	£1/10/– *at* + 1/6
After which allow per 1,000 do.	at + 9*d*.
For alterations and additions:	
When £100 the sum of £2/10–, plus 12/6 for every £100 or part of same, up to £1,000 ..	£2/10/– *at* + 12/6 per 100
When over £1,000 the sum of £8/2/6, and for every £100 or part of same beyond 3/-	£8/2/6 *at* + 3/– per 100
Public buildings: Fees as above but plus 50% ..	+ 50%
Fees in respect of means of escape in case of fire are 1/5th of the above or £2 if greater or in the case of a one-storey building £1	1/5th
Steel framed or r.c. buildings double	+100%

Allowance to cover National Insurances, Holidays with Pay and Public Holidays, Welfare, Third Party Risk, Travelling and Guaranteed Week is made in the rates attached to the items.

Allow for Fire Insurance do.	1/6%
Allow for Water for use on the works and apparatus do.	6/6%
Allow for hoarding, or similar licences in City of London say	£10
Do. under Borough Councils per each month	say 2/6
Allow for Office, Fire, Attendance on C. o W., etc. p. week say	£1

Supervision, etc., assessment Contract value	£4,000	£6,000	£12,000	£24,000	£50,000
Cost. of admin. ..	6%	5%	5%	4½%	4½%
Agent or foreman (each)	5%	4½%	3¼%	2½%	1½%
Timekeeper or Watchman (each)	2½%	2¼%	1½%	1%	¾%

SPOT ITEMS AND DEMOLITION, ETC.	Per foot run
Hoarding erected and removed	18/–
Planked gangway with handrail, etc. do. ..	9/6
Proper gantry do.	70/–
Sleeper roadways	15/–
Needling, strutting and shoring including all labours and use and waste in erection and removal ..	Per foot cube 18/–

ALTERATION-DEMOLITION—	1 Brick (Per foot	1½ Brick super)	2 Brick	Per yard cube
Cutting out cement concrete or brickwork in small quantities ..	1/3	2/4	3/3	58/–
Do. if either in very small quantities or reinforced	2/1	3/9	5/5	86/–
Debris into baskets and removed from inside to outside of bldg. ..	3½*d*	7*d*	8¾*d*	12/5

SCAFFOLDING (Avg. 45ft high) Per yard superficial	Period 1 month	3 months	5 months
Putlog type—4′ 6″ lift	5/7	7/7	9/8
Do. —6′ 0″ do.	4/2	5/9	7/4
Independent type—4′ 6″ lift ..	7/2	10/4	13/6
Do. —6′ 0″ do. ..	5/2	7/5	9/4

EXCAVATION Per Yard Cube. *By hand*	Common Soil	Loamy Clay	Gravel or Clay	Rock or similar
Reducing levels	5/9	6/11	8/1	54/1
Surface trench not exceeding 5ft deep	11/10	14/2	18/11	67/6
Do. from 5ft to 10ft ..	21/8	24/5	29/2	73/6
Do. from 10ft to 15ft ..	27/–	29/8	34/3	89/7
Fill in and ram	4/8	5/2	5/2	5/2
Barrowing 25 yds ..	2/9	3/–	3/–	3/5
Load vehicles and tip 8 miles away	15/3	15/3	16/2	16/10

PLANK AND STRUT To trenches, in normal ground Per Foot Super	To 5ft deep	5 to 10ft deep	10 to 15ft deep
.. .. ..	5½*d*.	7*d*.	9*d*.

CONCRETE 1½in Ballast Aggregate	Per yard cube
1 : 3 : 6 Cement concrete in foundations	73/–
Do. around grillages	76/–

REINFORCED CONCRETE

1 : 2 : 4—¾in concrete, worked around reinforcement, between formwork in the following (at various levels):—

Foundations and surface beds	80/6	Per cubic
Walls, 12in thick or more	87/–	Yard

Sectional inches	Lintols and beams	Columns and casings	Braces and projections
Up to 36 ..	4/6	4/10	4/10 Per cubic ft
36 to 72 ..	4/3	4/7	4/9 do.
72 to 144 ..	4/2	4/5	4/8 do.
over 144 ..	4/–	4/3	4/7 do.
Walls 6in thick			.. 16/8 Per super yd
Do. 9in thick			.. 24/6 do.
Suspended floors average 6in thick			.. 18/1 do.

REINFORCING RODS (round) bent and placed. (Ex Mills)— Per cwt	¼in	⅜in	½in	⅝ to 1in
In floors and beams ..	83/–	71/–	67/–	59/–
In walls	89/–	75/6	71/–	62/3
In columns	95/–	80/–	75/–	65/–

FORMWORK and Supports (4 times use)— Floor soffits	Beams	Walls	Columns
19/– per Yard	2/6	2/4	2/4 per super foot

BRICKWORK

BRICKWORK per YARD superficial reduced on ONE BRICK in thickness (scaffold to add)—	In 1 : 3 cement mortar
Flettons or other similar *at* 113/– per 1,000 ..	38/8
Mild Stocks or do., *at* 226/6 per 1,000 ..	52/10
Second Stocks or do., *at* 261/– per 1,000 ..	56/7
Southwater engineering or similar bricks, *at* 379/– per 1,000	73/–
Blue Staffordshire wire cut *at* 510/6 per 1,000 ..	86/11
Deduct if 1 : 1 : 6 Cement-Lime mortar is used in lieu of 1 : 3 Portland Cement mortar	2*d*
Add if brickwork commences above ground level	4/–
Do. if in backing to masonry including cutting and waste for bonding	3/1
Do. If circular-on-plan	7/3
Do. If in underpinning	7/3

BRICKWORK IN THICKNESS NOT REDUCED— Per yard superficial	Brick, on edge walls	Half-Brick walls	1 Brick finished fair both sides	11″ Hollow with 2″ cavity and G.I. tics
In Flettons or similar	16/10	21/5	39/8	45/4
In second stocks or do.	22/2	29/3	54/8	60/8
Add: for pointing as work proceeds, per side	1/7	1/9	1/7	1/7
Thickness to old walls, including cutting, toothing and bonding to same an average total thickness of ¾ brick ..		55/– Fletton	67/– Stock	
Do. all as last but an average total thickness of 1¼ bricks..		75/–	96/–	Per yard super do.

WALLS BUILT IN SUPERIOR BRICKS— In 1 : 3 Cement mortar, fair faced and pointed on both sides as the work proceeds:—	Half-Brick	One Brick
In first quality Stocks at 282/–	35/9	63/7 Per yard
In red facings at 310/–	35/6	63/6 super
In bluepressed facings at 562/–	56/–	97/8 do.

GENERAL AND SUNDRY—		
Cut tooth and bond new brickwork to old ..		4/8 per ft
Damp proof course, double slate, horizontal ..		3/6 super
Do., as last, but vertical		4/3 do.
Do., bitumen, Hessian base, do.		2/– do.
Frames, bed and point in cement mortar, one side		4½*d* per ft run
Window board of 6″×6″×⅞″ rounded on edge quarry tiles, bedded, pointed, cut and fitted ..		3/2 do.
Terra cotta air bricks built in and pointed, including flue ..	9″×6″ 5/3 1ft high 14/–	9″×9″ 9/6 each 2ft high 20/– each
Chimney pots, plain red, set and flaunched in cement mortar		
Metal windows, assembled, hoisted and fixed, lugs cut and pinned and frames bedded and pointed one side in cement mortar	Up to 5ft super 12/1 10ft to 20ft super 23/6	5ft to 10ft super 15/2 each 20ft to 40ft super 38/10 each
Leaving holes through walls for pipes and afterwards making good	Small pipes 3*d* per in in depth	Large pipes 6*d* per in in depth
Cutting do., and afterwards do.	10*d* do.	1/8 do.
Cut mortices in brickwork or concrete for bolts or dowles and run in with cement grout		1/1½ per in in depth, each
Holdfasts of stout iron hoop bent holed and screwed to frame and built in		1/3 each

MEASURED RATES—*Continued*

BRICKWORK—*Continued*

FACING—

Extra only over common brickwork (113/– per 1,000) for facing with superior bricks in *Flemish bond* and pointing as the work proceeds.

Rustic Flettons (138/–)	3/9	per yard super
White (210/–)	9/9	do.
First Stocks (282/–)	15/–	do.
Reds (310/–)	16/6	do.
Blue pressed (562/–)	34/10	do.

If built in English bond, *Add* 12½% to above
If do. half-brick stretcher bond, *Less* 25% off above.

COPING—

All labour and material in forming brick-on-edge coping with two course of roofing tiles under and cement weather fillets on both sides, built in cement and pointed as the work proceeds.

Per foot run	9″ thick	14″ thick
In picked Flettons	6/3	8/5
In first quality Stocks	7/7	11/1
In red facings	7/5	10/11

Plumbing angles	2*d.* per foot run
Fair cutting	11½*d.* do.
Fair raking cutting	1/6½ do.
Fair circular cutting	1/6½ do.
Fair squint or birdsmouth	1/10½ do.

ARCHES

Extra over Fletton brickwork for forming window head with red facing bricks set on end and with 4½″ soffits and pointing	foot run 3/7
Do. for rubbed and gauged flat arch in red rubbers set in putty with fine joints	foot super 18/3

PARTITIONS

(over 100 Yards)	Per yard super— 2in	2½in	3in
Concrete slab partitions in cement mortar	10/7	12/–	14/1
Hollow clay do.	12/6	13/5	15/–
Cutting and bonding at angles, intersections and ends	5*d.* foot run		

PAVING	1in	1¼in	1½in	
Grano trowelled gauge 5 : 2	8/–	9/–	10/–	yard super
1 × 5in skirting, square top and cove bottom			2/8	foot run
⅜in × 6in red quarry tile paving			28/3	yard super
⅜in × 6in do. skirting			1/10	foot run
Jointless flooring, ¼in thick			20/–	yard super

ASPHALT (normal conditions and fair quantity)

½in pitch mastic floor in one coat on felt underlay on prepared concrete base	B.S. 1450/48	1375/47 Brown	1375/47 Red
Per yard super	12/6	13/2	15/–
	Unit	Mastic B.S.988	Natural Rock B.S.S. 1162/44
½in in two thicknesses on felt underlay on prepared concrete base	yard super	17/–	22/6
Ditto in narrow widths	foot super	2/6	3/6
½in skirting 6in high, angle fillet at bottom splayed and turned in at top	foot run	3/–	3/6
External angles	each	6*d.*	6*d.*
Internal *ditto*	each	10*d.*	10*d.*
Tanking or Damp Course		B.S.1097/43	B.S.1418/47
Vertical in two thicknesses	yard super	22/6	32/–
½in horizontal *ditto*	yard super	15/–	23/6
Vertical in three thicknesses	yard super	32/–	39/–
1½in horizontal *ditto*	yard super	21/–	30/6
Labour rounded external angle	per foot run	6*d.*	6*d.*
Ditto internal angle fillet	per foot run	10*d.*	11*d.*
Ditto double *ditto*	per foot run	1/8	1/8
Collars to small pipes	each	3/6	4/–
Ditto to large pipes	each	6/6	8/–

DRAINAGE

Excavate trench, and plank and strut to sides, consolidate bottom to fall, return fill and ram earth after drain is laid and load and remove surplus. In ordinary ground—moderately firm

Per lineal yard	
1 foot in depth	4/5
2 do.	7/8
3 do.	18/–
4 do.	24/–
5 do.	30/–
6 do.	40/3
7 do.	49/–
8 do.	62/–
9 do.	72/6
10 do.	88/6
11 do.	100/5
12 do.	113/–

Portland cement (1 : 6) concrete bed under drain pipes and benching up on both sides—6in thick	Per yard run 4in 18in wide 8/–	6in 20in wide 9/6	9in 23in wide 11/6

SALT GLAZED SANITARY DRAIN PIPES
and lay and joint with Yarn and Cement Mortar in trench.

Quality	Quantity	Per foot run 4in	6in	9in
"Best"	2 Tons or more	3/1	4/3	7/2
	over 100 pieces	3/4	4/9	8/–
	under 100 ditto	3/5	4/10	8/4
"Best Tested"	2 Tons or more	3/9½	4/11	9/–
	over 100 pieces	4/3	6/3	10/4
	under 100 ditto	4/4	6/6	10/8
"British Standard"	2 Tons or more	3/3	4/10	7/7
	over 100 pieces	3/8	5/5	8/7
	under 100 ditto	3/9	5/8	9/4
"British Standard Tested"	2 Tons or more	4/–	6/–	9/9
	over 100 pieces	4/7	6/11	11/2
	under 100 ditto	4/10	7/2	11/10
Extra for bends "Best"—Contained in 2 Ton lots.		4/2	6/3	16/6
Extra for junction "Best"—4in on 4in, 6in on 6in—9in on 9in	ditto	6/6	9/9	27/–

IRON DRAIN PIPES—

	Per foot run 4in	6in
Heavy cast iron socketed and laying and jointing in molten lead—		
In main runs	12/–	16/3
In branches	13/4	18/3
	each	
Extra over last for bends and extra joint	36/–	71/4
Do. on do. for junctions and extra joint	48/2	89/7
Cast iron gulley with 10½in inlet and 4in outlet, composed of hooper and trap, and 9in extension piece and 10½in grating, and jointing all together, and jointing to drain and surrounding in concrete	162/6	—
Do. rain water, shoe with vertical inlet and inspection cover, and joint up and embed	85/–	129/–

MANHOLE SUNDRIES—		4in	6in
Salt glazed straight half-round main channels	each	5/–	7/–
Do. curved	do.	10/6	15/–
Do. three-quarter section splayed channel bends (Barrons or similar)	do.	14/3	20/8
Heavy manhole steps galvanized	do.	9/9	—
Fix only manhole covers	do.	11/–	—
4in Mica flap, brass faced, f.a.i. valves and fix with molten lead joint	do.	38/6	—

ROOFER

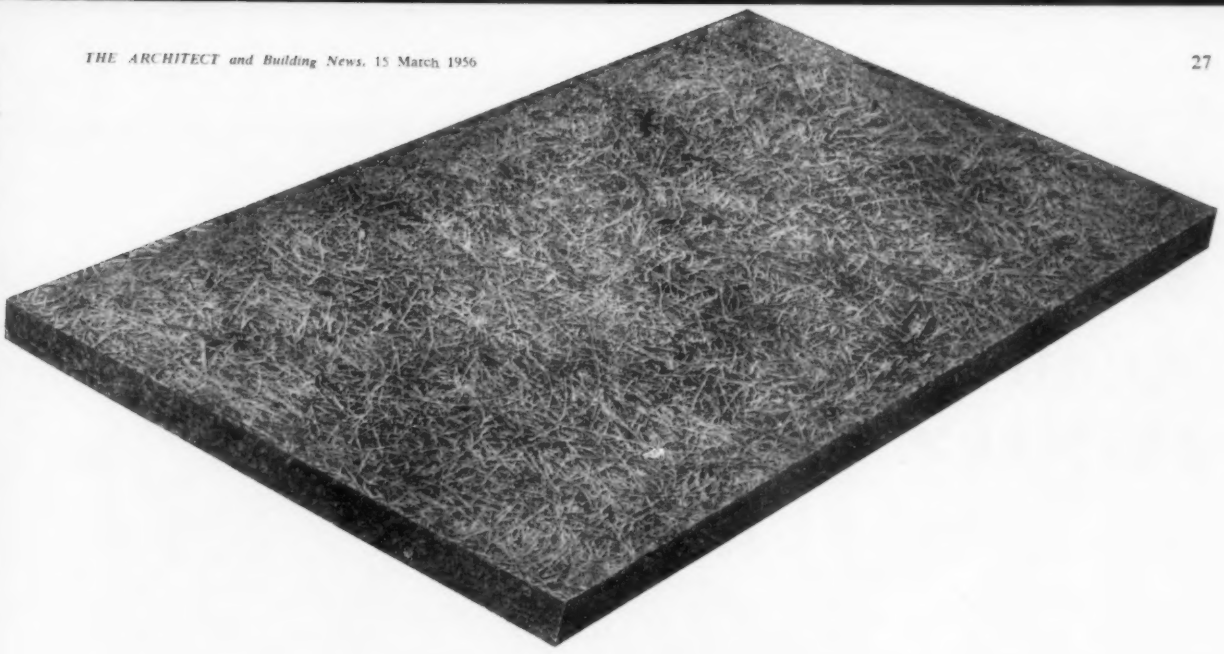
CORRUGATED ASBESTOS SHEETS

P.C. 7/4¾ per super yard, including side and end laps and fixing to wood	142/– per square
Eaves filler pieces	1/9 foot run
Adjustable ridge	3/4 do.
Barge boards	2/8 do.
Plain roofing tiles, machine made, sand faced, 4in gauge nailed every 4th course with 1½in galvanized nails, to battens (measured separately)	252/– do.
Extra over last for top edge or abutment cutting	1/3 do.
Do. for double course at eaves	2/5 do.
Do. for verges, undercloak, bed and point	3/6 do.
Do. Valley tiles including cutting and waste on both sides	11/3 do.
Do. Bonnet hips and do. bed and point	11/9 do.
Half-round ridge and bed and point	3/3 do.
Fixing soakers	1/6 dozen

Bituminous felt roofing in two layers, laid breaking joint and bedded with hot mastic and finished with fine dry grit	11/6 yard
Do. but in one layer only	8/6 super

WELSH SLATING	Per square 16″ × 10″	18″ × 10″	20″ × 10″
3in lap, 2 zinc nails to each slate	297/6	303/6	354/6

Additional labours	Per foot lineal—		
At tops, verges and abutments—straight	1/6	1/8	1/10
Do. —raking	2/3	2/6	2/9
At hips and valleys (each side)	2/3	2/6	2/9
At eaves, double course	3/–	3/3	3/8
Do. to falls	4/6	4/10	5/6



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THE QUALITY

WOOD WOOL BUILDING SLAB

Standard size: 6′ × 2′ (details of special sizes on request). Thickness: 1″, 1½″, 2″, 2½″ and 3″

For :

1 Insulating Structural Roof Decks.
2 Sarking over rafters.
3 Timber joist roof construction.
4 Undercover insulation and structural units to all types of metal roofing.
5 Underside timber joist ceiling construction.
6 Suspended acoustic ceilings with decorated finish.
7 Suspended ceilings with plaster finish
8 Insulation under asbestos-cement or corrugated iron roofing.
9 Insulation applied over concrete roof and floor surfaces.
10 Wall linings applied direct to brickwork.
11 Wall linings applied on timber battens.
12 Permanent shuttering to concrete roofs and floors.
13 Permanent shuttering to hollow-pot roofs and floors.
14 Permanent shuttering to concrete walls.
15 Insulated self-supporting solid partitions.
16 Insulated timber stud partitions.
17 Tank insulation.

MARLITH OFFERS ALL THESE ADVANTAGES AT LOW COST

LIGHT IN WEIGHT · HIGH IN STRENGTH · SUPERIOR THERMAL INSULATION · GOOD SOUND ABSORPTION
EASY TO APPLY · FIRE AND MOISTURE RESISTANT

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MARLEY

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'quality'
JOINERY
for FLATS

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WOOD WINDOWS
FLUSH DOORS
KITCHEN UNITS
FLUSH DOORS
WOOD WINDOWS
FLUSH DOORS

JOHN SADD & SONS LTD. MALDON • ESSEX

MEASURED RATES—*Continued*

FLOORS AND FLATS

Hollow tile in situ or precast units hoisted, bedded and fixed—

	Superimposed load in lb per foot super	Span 12 feet	Span 16 feet
Per yard super	50	45/–	51/1
	100	46/9	54/–
	150	50/6	57/6

20lb has been allowed to cover dead load in surface, finish.
Fair edge to slabs .. .. 9*d.* per foot run
Splay cutting and waste .. .. .. 1/9 do.

CARPENTER AND JOINER

SOFTWOOD CARCASSING—

Labour, materials, waste nails, hoisting and fixing	per foot cube— Plates 18/10	Joists 20/1	Rafters 21/8	Trusses 24/3

FLOORING—

Per square—	¾in	1in	1¼in
Rough boarding	131/6	161/6	198/6
Softwood batten flooring, straight joints, splayed headings	133/–	163/–	200/6
Do. grooved and tongued	162/8	193/2	237/9

SKIRTING—

Per foot superficial—	½in	¾in	1in
Wrot softwood moulded skirting with grounds and backings plugged ..	3/6	4/1	4/8

Mitres to do. .. 3*d.* per sectional inch
Fitted ends .. 2*d.* do.

SASHES, fanlights, casements, borrowed lights, etc.—

Per foot super—	Without bars	With bars (2ft sup. in each square)
2in softwood rebated, moulded and fixed	3/–	5/4
Add if fitted with beads	6*d.*	1/6
Add if hanging on butts	2/3 each	

WINDOWS, hung on lines—
Softwood cased frames, 1in inner and outer linings, 1½in pulley stiles, 2in sashes, oak sill ..

	Overall size of frames— 6ft	21ft	32ft	44ft
Per foot super				
Windows as described ..	18/–	10/–	7/8	6/–
Add if sashes in squares, about 2 feet super in each ..	—	1/6	2/–	1/11
Extra for hanging sashes with lines, weights and axle pulleys ..	each 30/3	50/3	62/3	84/3

FINISHINGS TO OPENINGS—

Per foot super—	¾in	1in	1¼in	1½in
Softwood linings, tongued at angles and tongued to frame including grounds and backings	3/5	3/11	4/9	5/4
Add if crosstongued	6*d.*	6*d.*	6*d.*	6*d.*
Softwood wrot rounded on front edge and with tongue at back window board including groove in sill and bearers	3/4	3/10	4/9	5/3
Add for ends to last notched, returned and rounded	1/1	1/2	1/3	1/4

Per foot run—	Sectional area in inches— 1	2	3	4	5	6
Softwood wrot and fixed in bearers, backings, grounds, fillets, and similar	3¾*d.*	6*d.*	8½*d.*	11*d.*	1/1½	1/3½
Add if in short lengths ..	2*d.*	2*d.*	2½*d.*	2½*d.*	3*d.*	3*d.*
„ if plugged to brickwork	4*d.*	4*d.*	4*d.*	4*d.*	4*d.*	4*d.*
„ if framed as in legs and bearers	3*d.*	3*d.*	4*d.*	4*d.*	6*d.*	6*d.*
„ if rebated or grooved or beaded	¾*d.*	¾*d.*	¾*d.*	¾*d.*	¾*d.*	¾*d.*
„ if chamfered or rounded edges				1½*d.*		
„ if moulded in architraves, capping, etc.				3*d.*		

DOOR FRAMES—

Per sectional inch—	Per foot run— 6in	8in	10in	12in	13½in
Softwood, wrot, rebated, rounded framed and fixed ..	2/1	2/5	3/–	3/4	3/7

DOORS—Per foot super

2in Softwood square framed and flat panels, both sides, on butts ..	Number of panels— 1 5/5	2 6/3	3 6/9	4 7/3	5 7/7	6 8/1
1½in do.	4/11	5/9	6/2	6/7	7/–	7/6
Add for each side moulded	3*d.*	4*d.*	5*d.*	6*d.*	7*d.*	8*d.*
Add B.S. flush panelled	1/6	1/6	1/6½	1/7	1/8	1/8

per foot super—	¾in	1in	1¼in	1½in
In shelves, table tops, wrot and fixed	2/4	2/7	3/–	3/6
Do. in divisions and ends framed ..	2/7	2/10	3/3	3/11
Add if crosstongued	6*d.*	6*d.*	6*d.*	6*d.*
Add if buttoned	6*d.*	6*d.*	6*d.*	6*d.*

SUNDRIES—Per foot run ..

	In short lengths	In long lengths	Add for cups and screws
Glazing, beads mitred around and fixed with brads ..	6*d.*	4*d.*	2*d.*
Rounded heel or hollow ..		4*d.*	
Tongued and grooved angle ..		6*d.*	
Glue blocking		6*d.*	
Mitres	3*d.*	per sectional inch.	
Fitted ends	2*d.*	do.	

STAIRCASE—

	Per ft Super		
1¼in Softwood treads with moulded nosings. 1in risers tongued both edges and glued, blocked and bracketed on and including two fir framed carriages	6/–		
Do. but in winders	7/3		
1¼in crosstongued landing on framed carriages	6/–		
2in moulded string	5/–		
2in do. ramped	11/9		
Ends framed to newel	9/8	each	
Tongued and mitred angles	5/6	do.	
Tongued heading joints	5/6	do.	
Ends of treads and risers housed to string ..	3/6	do.	
Extra for curtail ends to steps, glued up and veneered riser and solid blocking	100/–	do.	
Balusters about 2ft 9in long, square and framed each end .. .. each	1in 3/9	1¼in 4/6	1½in 5/3
3½in × 3½in square newel, framed ..	4/–	per foot run	
African mahogany moulded 3in × 2in hand-rail. (Joints below)	8/9	do.	
Do. ramped 18in girth (do.)	52/–	each	
Do. wreathed do. (do.)	155/–	each	
Joint or framed ends	11/–	each	

FIXING ONLY IRONMONGERY

	To deal	To hardwood
Barrel bolts	1/8	2/6 each
Flush bolts	4/–	4/10 do.
Sash fasteners	3/2	2/10 do.
Rim locks and furniture	5/6	7/– do.
Mortice locks and do.	11/–	17/– do.
Cupboard locks	2/9	3/5 do.
Casement fasteners	2/3	2/9 do.
Do. stays	2/3	2/9 do.
Grip handles	2/7	3/5 do.
Spring catches	2/3	2/9 do.
Cabin hooks	1/10	2/5 do.
Floor springs including oil	47/–	60/– do.
Overhead springs	14/–	16/6 do.
Springhinges	11/–	13/6 do.

SMITH AND FOUNDER

Basis framed steel joists and hoist and fix	69/–	per cwt.
Do. but in compound girders ..	79/–	do.
Do. but in stanchions	80/–	do.
Trusses	110/–	do.
Additional cost per cwt. over basic sections for following R.S.J.s 9in × 7in, 10in × 8in, 12in × 8in, 14in × 8in, 16in × 8in, 18in × 6in, 18in × 7in, 20in × 6½in, 20in × 7½in	7*d.*	per cwt.
22in × 7in, 1/1 cwt. 4in × 3in	1/8	do.
5in × 3in, 5in × 2½in	2/–	do.
6in × 3in, 24in × 7½in	2/3	do.
3in × 3in, 2/9 cwt. 4½in × 1¾in ..	3/7	do.
3in × 1½in	3/11	do.
Cleats, brackets, packing pieces, etc., in connections, including rivets and bolts	154/–	do.
Forged straps	114/–	do.
Wrot iron balustrade	153/–	do.

RAINWATER GOODS—

Round cast-iron pipe with socketed joints caulked with red lead and tow and fixing with pipe nails and gas barrel distance pieces to plugs in brickwork	Per foot lineal 2in 3/11	3in 4/4	4in 5/6½
Extra for shoes .. .. .. each	5/3	6/8	9/7
Do. junctions .. .. .. do.	7/11	10/1	14/7
Do. bends .. .. .. do.	6/2	7/11	10/2

RAINWATER GUTTERS Per foot run—

	4in	5in	6in
Half round CI gutters jointed in red lead and bolted and fixed on iron brackets	3/7	4/4	5/4
Ogee do. All as last	4/1	4/9	5/11
Extra for stop ends	3/2	3/10	4/5
Do. angles or outlets	5/4	6/9	8/–

MEASURED RATES—*Continued*

PLUMBER

EXTERNAL—		Soakers	Flats	Flashings
4lb Milled Sheet lead per cwt		199/–	235/–	245/–

LEAD PIPES : running joints, etc.

Per foot run		½in	¾in	1in	1¼in	1½in	2in
Main	Fixed	4/11	7/3	10/1	13/2	17/–	23/1
Service	with	4/5	6/3	8/4	10/6	13/3	18/3
Waste	hooks	2/10	4/2	5/6	8/5	9/5	11/8
Bends	each	—	—	—	1/9	3/–	8/–
Solder joints	„	8/10	10/9	1 2/8	14/9	17/4	22/10
Union and joints	„	12/10	16/5	18/6	24/6	—	—
Stop valve and *ditto*	„	28/11	37/7	51/10	80/9	—	—
Bib valve and *ditto*	„	20/8	28/–	—	—	—	—
Ball valve and *ditto*	„	22/6	31/7	49/5	71/11	—	—
Sleeve and *ditto*	„	—	—	—	—	21/3	28/9

COPPER TUBES

	½in	¾in	1in	1¼in	1½in	2in
Tubes per foot run ..	3/2	3/11	5/4	6/5	7/6	11/1
Couplings : straight each	3/3	4/2	6/2	8/–	10/3	13/10
Do. Bends each ..	6/6	7/10	11/–	15/–	22/4	30/10
Do. Tees each ..	7/8	8/11	12/11	17/10	24/–	33/8
Do. Cisterns each ..	4/4	5/9	7/6	9/8	13/4	17/6
Stop cocks each ..	24/4	35/4	63/–	104/6	159/–	240/–

BLACK TUBING (Class C) fixed with pipe brackets

	½in	¾in	1in	1¼in	1½in	2in
Tubes, per foot run ..	1/9	2/1	2/7	3/3	3/10	5/1
Bends and fix, each ..	3/10	4/7	5/7	7/3	8/2	12/8
Tees and *ditto*	4/–	4/9	5/9	7/5	9/–	13/4
Fire bends	1/5	1/9	1/10	2/1	2/9	4/10

Coated iron (M) weight L.C.C. soil and waste fixed with nails and distance pieces and molten lead joints	2in 5/3	4in 7/7	foot run
Extra only for bends and joint	14/2	22/8	each
Do. junctions and joints	15/8	28/4	do.
Do. cleaning doors	15/–	16/4	do.
Domical wire guards	2/6	2/9	do.

PLASTERER—

			yard super
Lime and hair	¾″	Render and set	6/4
Do.	½″	Ditto float and set	8/–
Sirapite	½″	Skimming coat	3/10
Do.	⅝″	Render and set	7/8
Do.	⅝″	Render, float and ditto ..	9/6
Portland	½″	Backing coat	4/4
Do.	⅝″	Plain face	7/8
Do.	¾″	Floor screed	4/8
Keenes	¼″	Skimming coat	5/–
Dubbing	½″	Thick or less	2/2
Metal Lathing	⅜″	mesh × 24 Gauge	6/2

6″ × 6″ × ¼″ Earthenware Plain Glazed Tiles, in fair quantity, white, and setting (on prepared screed) .. 40/–
Rounded edge. Extra over last .. 4*d.* per foot run
Angles in ditto .. .. .. 4*d.* each
Cutting and fitting. Around pipes or clips 1/– ditto
Narrow widths. 3″ to 6″ wide. Add 75% to plain surface.
Ditto. 6″ to 12″ ditto. Add 40% to plain surface.
Sundry labours per foot lineal :—
Quirk 2½*d.* Arris 3½*d.* Fair edge 2½*d.* Rounded edge 4*d.*
Flush bead 1/6.
Mouldings—5*d.* per inch girth.
Jointing new plastering to old 3*d.*

POLISHING

NEW WORK—	Foot super	Sashwork Foot run
Staining, bodying-in and French Polish	2/9	1/9
Staining and wax polishing on hardwood	1/2	9*d.*
OLD WORK—		
Cleaning down old work and repolish	1/2	—
Stripping, preparing and repolishing ..	3/–	2/–

INTERNAL PAINTING

With white lead base in common colours, with brushes.

	Knot stop and prime	Prime and paint once	Prime and paint twice	Add for each extra coat	
ON WOOD —					
General surfaces	2/4	4/9	7/–	1/11	Yard super
Running lengths not exceeding 3″ wide	3½*d.*	7*d.*	9½*d.*	2⅞*d.*	Yard run
Do. 3″ to 6″ wide	5*d.*	9½*d.*	1/2	4*d.*	do.
Do. 6″ to 9″ wide	7⅜*d.*	1/2½	1/10	6½*d.*	do.
Do. 9″ to 12″ wide	9½*d.*	1/6½	2/3½	7⅜*d.*	do.
Sash square each side	4/5	8/9	13/3	3/9	per doz.
Do. in large squares	6/–	12/6	18/4	5/3	do.
Opening edges ..	7*d.*	1/2	1/9	7*d.*	each
Casement frames each side ..	4¾*d.*	8¾*d.*	1/–	3*d.*	Yard run
Mullions or transoms, do	6½*d.*	11½*d.*	1/3	4½*d.*	do.

ON PLASTER—

	One coat	Two coats	Three coats	
Paint on surfaces	2/9	5/2	7/1	Per Yard super
Do. on mouldings ..	3/2	5/9	7/9	do.
Do. on enrichment ..	4/11	9/3	12/–	do.

ON STEEL—

Paint on structural steel ..	2/1	4/–	5/9	do.
Do. on roof trusses ..	3/6	6/11	9/6	do.
Do. on metal windows measured over all on both sides, divided into squares	3/3	5/6	7/11	do.
Do. divided into large squares	2/9	4/9	6/4	do.
Do. divided into extra large squares	2/4	3/11	5/4	do.
Do. on opening edges ..	10*d.*	1/6	2/–	each
Do. on rain water pipe ..	10*d.*	1/7	2/1	Yard run
Do. on do. gutter ..	1/3	2/8	3/7	do.
Do. on small pipe ..	3*d.*	6*d.*	10*d.*	do.

GLAZING (to New Work)

Polished Plate Glass ordinary substance (about ⅛in), glazing quality, in the following sizes, glazed complete—Per foot super

In plates not exceeding	2 feet super	in each ..	5/5½
Do.	5	do. ..	6/3½
Do. (unless extra sizes)	45 feet	do. ..	7/1
Do. (unless extra sizes)	100 feet	do. ..	7/4

Add extra price for glazing with screw beads or clips 5*d.* per foot super.
Do. if glazing bedded in washleather or velvet 9*d.* per foot run

SHEET GLASS, glazed, complete, per foot super, in new work: Ordinary quality clear, glazed to wood with putty :—

24 oz as described		1/3¼
26oz do.		1/6½
32 oz do.		1/10½
⅛ figured rolled and Cathedral, glazed to wood with putty	Per foot super	1/5½
Do. in standard tints	do.	2/2
No. 4 Fluted, glazed do.	do.	2/0½
⅛in Reeded (narrow, board, etc.) do.	do.	1/10
Reedlyte do.	do.	1/10
Spotlyte do.	do.	1/10
⅛in Rough cast do.	do.	1/9
⅛in Do. wired do.	do.	1/11½
⅛in Georgian Rough Cast do. ..	do.	1/11¾

Add for glazing all as before but to steel to similar work as above, 1½*d.* per superficial foot.

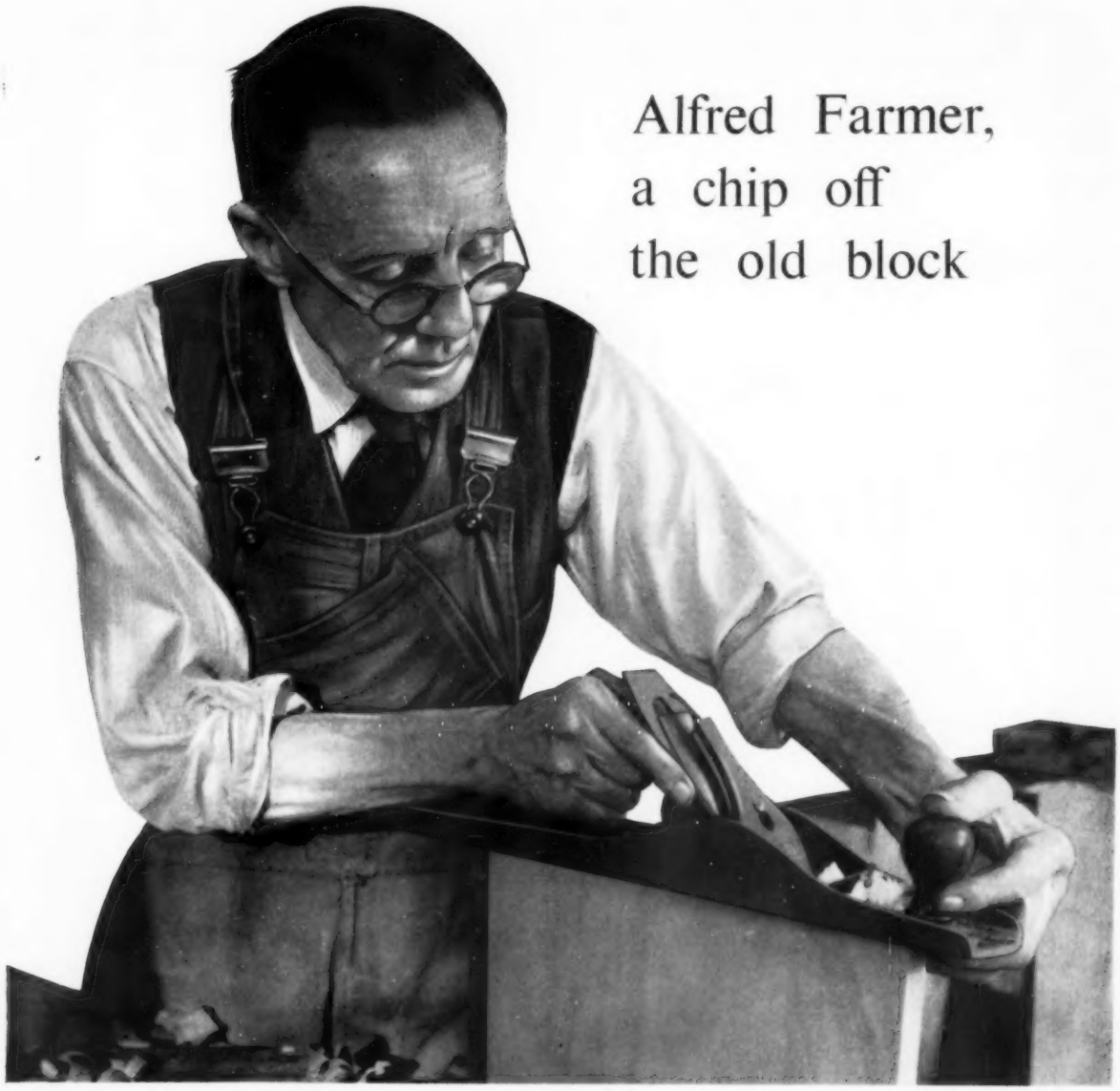
PAINTER AND DECORATOR

DISTEMPERING—In common colours, put on with brushes—ON PREPARED SURFACE.

per yard super—	1 coat (finish)	2 coats (undercoat and finish)	*Add* if required for Sealing coat	Stippling
Ordinary distemper on flat surface of plaster	8½*d.*	1/4	6*d.*	3*d.*
Washable do. on do. of plaster	11¼*d.*	1/9	6*d.*	3*d.*
Add if in margins, narrow widths or panels	30%	30%	20%	50%
Add if on mouldings ..	50%	50%	45%	—
Add if on enrichments ..	160%	160%	115%	—

PAPERHANGING

Hanging only—	Per Piece—Lining	Pattern
On walls	6/10	8/2
On stairs	9/4	10/10
On ceilings	8/2	9/7



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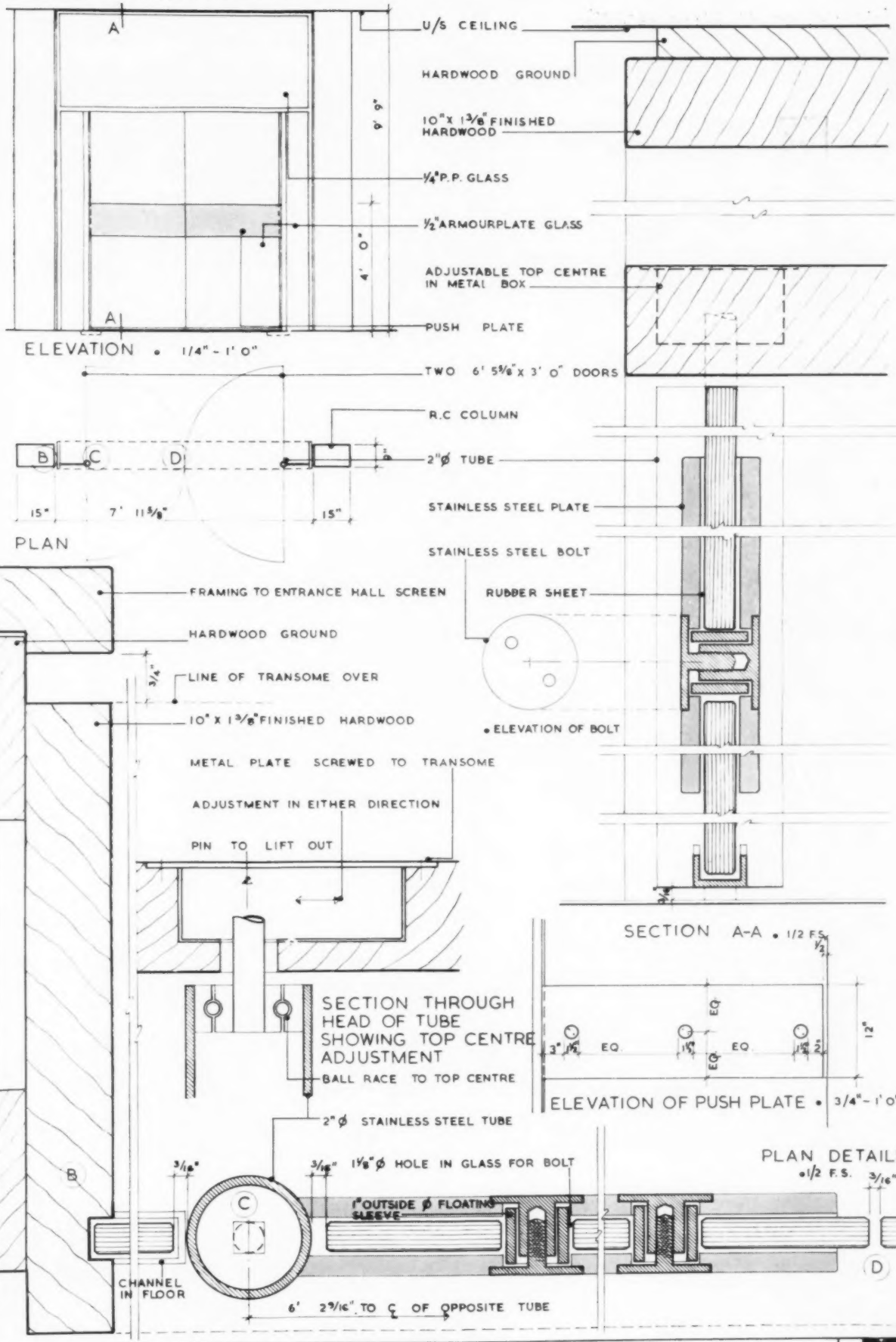

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DATE OF ISSUE 15 MARCH, 1956

CONTRACT • NEWS •

*Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading (c) deposit (d) last date of application (e) last date and time for submission of tenders. Full details of contracts marked * are given in the advertisement section.*

OPEN

BUILDING

AYCLIFFE DEVELOPMENT CORPORATION. (a) Contract No. 118. Erection of 188 houses, in Precinct E.1. at Newton Aycliffe. (b) General Manager, Aycliffe Development Corporation, Newton Aycliffe, Co. Durham. (c) 2gns. (e) April 3.

BRADFORD C.C. (a) Erection and completion of proposed block of 10 shops in Forster Square. All trades. (b) City Architect's Office, Town Hall. (e) March 26.

BRAINTREE and BOCKING U.C. (a) Erection of (Contract No. 2) 4 pairs of houses Type 54, 8 houses, 3 garages and 8 outbuildings, and (Contract No. 3) 2 blocks of houses Type 55A, 6 houses, 1 garage and 7 outbuildings, at Challis Lane Estate. (b) Council's Engineer, Town Hall. (c) 2gns. (e) April 2.

BROMLEY EDUCATION COMMITTEE. (a) Erection of extensions, comprising assembly hall, multi-storied block of 8 classrooms, cloakrooms, lavatories and boiler houses, and biology laboratories, at Technical School for Girls, Chislehurst Road. (b) Borough Engineer, Municipal Offices. (c) 2gns. (d) March 17 together with particulars of similar works carried out.

CHESTERTON R.C. (a) Erection of 34 dwellings at Fulbourn. (b) Council's Architect, 93 Hartington Grove, Cambridge. (c) 2gns. (e) March 28.

CROYDON B.C. (a) Erection of 80 dwellings in one, two, three and four storey blocks, and 30 garages, for first stage redevelopment of Longheath temporary housing estate. (b) Borough Engineer, Town Hall, Katharine Street. (e) April 12.

DURHAM C.C. (a) Erection of a new ambulance depot, at Hartlepool. (b) County Architect, South Street. (e) April 9.

EBBW VALE U.C. (a) Erection of (1) a block of six shops and ten flats, and (2) block of 12 flats, at Tredegar Road site. (b) Council's Architect, Council Offices. (c) 3gns by cheque, payable to Council. (e) March 31.

EIRE-CORK. (a) Erection and completion of a proposed dormitory block at St. Joseph's Convent, Newmarket, Co. Cork. (b) Patrick J. Sheahan, 47 O'Connell Street, Limerick. (c) £20. (e) March 23.

ESSEX C.C. (a) Renewal of electrical installation at (1) Chingford county secondary school, and (2) Chingford Chase Lane county primary school. Approx. cost (1) £2,750, and (2) £2,500. (b) County Architect, County Hall, Chelmsford. (d) March 17.

ESSEX C.C. (a) Carrying out heating installation at St. Osyth Training College, Clacton-on-Sea. Approx. cost £4,100. (b) County Architect, County Hall, Chelmsford. (d) March 17.

GILLINGHAM B.C. (a) Erection of 68 dwellings in pairs and terraces on the Twydall estate. (b) Borough Engineer, Municipal Buildings. (c) 5gns by cheque payable to Corporation. (e) April 14.

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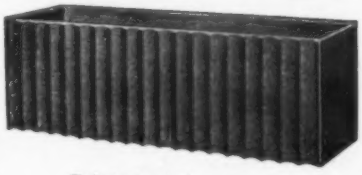
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K

KING'S LYNN B.C. (a) Erection of one pair of bungalows at Riversway and one pair at Losinga Road, North Lynn Estate. (b) G. Holmes, Clifton House, Queen Street. (c) 1gn. (e) March 30.

LEEDS REGIONAL BOARD. (a) Carrying out alterations to kitchenman ward at Royal Halifax Infirmary. (b) Board's Architect, Park Parade, Harrogate, Yorks. (c) 2gns. (d) March 14. (e) April 9.

LONDON—ACTON B.C. (a) Carrying out alterations to the canteen at Central and Derwentwater School, Shakespeare Road, to form a staff cloakroom, office and additional stores. (b) Borough Engineer, Town Hall. (e) March 26.

LOUTH R.C. (a) Erection and completion of a block of four maisonnette flats at Holton-le-Clay. (b) Wm. Saunders and Partners, 24 Castle Gate, Newark-on-Trent, or 14 Mercer Row, Louth. (c) 3gns. (e) March 28.

MANCHESTER C.C. (a) (1) Alterations to existing plumbing installations and redecoration of existing art room at Claremont secondary school, Claremont Road, and (2) alterations to existing plumbing installations and alterations to existing art and handicraft rooms at Princess Road primary school, Princess Road. (b) City Architect, P.O. Box No. 488, Town Hall. (e) March 28.

NEWBOTTLE. (a) Erection of four-bay garage, for Newbottle and District Co-operative Society Ltd. on the Society's ground at Newbottle. (b) Secretary of the Society, South Street. (e) March 24.

N. IRELAND — BELFAST C.C. (a) Adaptations and extensions to Mountcollyer House, Upper Malone Road, to form Taughmonagh special school. (b) Education Architect's Department, 40 Academy Street. (c) £5. (e) April 5.

N. IRELAND — BELFAST C.C. (a) Erection of a block of 24 flats, at St. Paul's Street. (b) Housing Architect's Department, 94 Chichester Street. (c) £5. (e) March 27.

N. IRELAND—DOWN EDUCATION COMMITTEE. (a) Erection of a new intermediate school at Killyleagh. (b) Messrs. Roe Stevenson and Sons, 33 College Gardens, Belfast. (c) £5. (e) April 5.

NORTH RIDING EDUCATION COMMITTEE. (a) Erection of new modern school at Bedale, Nr. Northallerton. (b) F. Barraclough, County Hall, Northallerton, or W. B. Edwards and Partners, 5-6 Claremont Buildings, Eldon Place, Newcastle-on-Tyne, 1. (e) March 26.

NORTHUMBERLAND C.C. (a) Erection of a police wireless station at Quarry House Moor, near North Charlton, Alnwick. (b) County Architect, County Hall, Newcastle/Tyne, 1. (d) March 19.

OLDBURY B.C. (a) Erection of 16 bungalows on Cakemore estate. (b) Borough Surveyor, Municipal Bank Chambers, Birmingham Street. (c) 2gns. (d) March 12. (e) March 30.

PEMBROKE B.C. (a) Erection of 48 houses and 4 flats at Bush Camp, Pembroke Dock, also construction of roads, sewers and water mains and site clearance. (b) Borough Engineer, Municipal Offices, Pembroke Dock. (c) 5gns. (e) March 29.

PEMBROKESHIRE C.C. (a) Carrying out extensions and alterations to St. David's Grammar School. (b) County Architect, County Offices, Haverfordwest. (c) 2gns. (e) March 31.

PETWORTH R.C. (a) Erection of 20 flats, 20 houses and 12 flats at Station Road, Petworth. (b) Messrs. Godman and Kay, "Milnwood," 13 North Parade, Horsham. (e) April 10.

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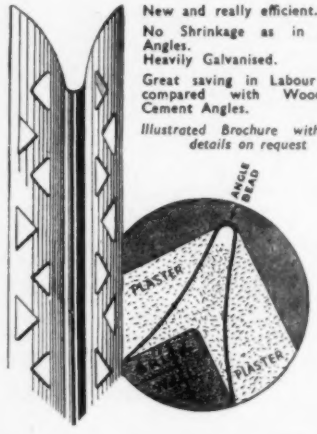

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RICHMOND B.C. (a) Erection of a block of two flats in Raleigh Road, Richmond. (b) Borough Engineer, Hotham House, Heron Court, Richmond. (c) 3gns. (e) April 3.

RUGBY B.C. (a) Erection of a block of 24 flats, 14 garages and stores, together with site works, at Abbots Farm estate. (b) Borough Surveyor, Burford House, Church Walk. (c) 2gns. (e) April 9.

SALFORD C.C. (a) Erection of (Contract No. 1) two houses on a site at Westgate Road, Salford 6, and (Contract No. 2) 13 houses on a site at Winchester and Worcester Roads, Salford 6. (b) City Engineer, Town Hall, Salford 3. (c) 2gns each contract. (e) April 12.

SALFORD C.C. (a) Erection of 96 flats in three-storey blocks at Corporation Street. (b) City Engineer, Town Hall. (c) 3gns. (e) April 12.

SALTASH B.C. (a) Contract 1/1956. Erection of four blocks of eight flats at Grenfell Avenue third extension site. (b) Borough Surveyor, Church House. (c) 2gns by cheque. (e) April 27.

SCOTLAND — NEWBURGH BURGH COUNCIL. (a) Erection of four blocks of 10 houses and six blocks of 24 houses, at Shorepark site. (b) L. A. Rolland, The Albion House, Shorehead, Leven.

STOURBRIDGE B.C. (a) Erection of 5 bungalows and onee common room in one block at the junction of Heath Lane and Corser Street. (b) Borough Engineer, Council House. (c) 3gns. (e) April 11.

SWAFFHAM R.C. (a) Erection of 2 bungalows at Beechamwell, 2 at Ickburgh, and 4 at Mundford. (b) W. A. J. Spear, 36 Cattle Market Street, Norwich. (c) 2gns. (e) April 4.

WAKEFIELD. (a) Conversion of Austin House, Westgate, into showroom. All trades. (b) Messrs. Turner and Holland, 4 King Street. (c) 3gns. (e) March 31.

WEST RIDING OF YORKSHIRE C.C. (a) Adaptation of Baldwins Mills, Stansfield Road, Todmoreden, as an ambulance depot. (b) County Architect, Bishopgarth, Westfield Road, Wakefield. (e) March 26.

WILLITON R.C. (a) Erection of one block of four houses, at Crowcombe, and 8 bungalows, at Allerford. (b) Council's Engineer, Council's Offices, Fore Street. 2gns. (e) April 23.

WOLVERHAMPTON B.C. (a) Erection of 33 dwellings at Northwood Park Road, Bushbury estate. (b) Borough Engineer, Town Hall. (c) 2gns. (d) March 17.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

KENT. (1) Factory for Batchelors Peas Ltd. (2) Ashford. (3) Christiani and Nielson Ltd., Tufton Street, London, S.W.1. (4) £1,250,000.

SALFORD CORPORATION. (1) Secondary School. (2) Hope Hill, Pendleton. (3) G. and J. Seddon Ltd., Little Hulton, near Bolton. (4) £145,421.

LONDON COUNTY COUNCIL. (1) Development of boarding school. (2) Woolverstone Hall, near Ipswich. (3) Rogers Bros. Ltd., Felixstowe. (4) £226,950.

LONDON E.C. (1) Large office block. (2) Gutter Lane, E.C.2. (3) Bernard

Sunley and Sons Ltd., St. James's Street, London, S.W.1. (4) About £600,000.

BERKSHIRE C.C. (1) Secondary school. (2) Bracknell (No. 2). (3) J. M. Jones and Sons Ltd., Highway Works, Maidenhead. (4) £153,010.

WEST SUSSEX C.C. (1) Secondary school. (2) Horsham. (3) J. Longley and Co. Ltd., Crawley, Sussex. (4) £164,613.

PARK ROYAL, N.W. (1) Extensions to brewery, for A. Guinness, Son and Co. Ltd. (3) Holland and Hannen and Cubitts Ltd., 1, Queen Anne's Gate, London, S.W.1. (4) £100,000.

WALLASEY B.C. (1) Junior school. (2) Birket. (3) Leyland Construction Co. Ltd., Wellfield, Leyland, Lancs. (4) £78,900.

BARNSLEY CORPORATION. (1) Erection of secondary technical school. (2) Broadway. (3) Direct labour. (4) £222,000.

LONDON, S.W. (1) Divisional headquarters for Metropolitan Police. (2) Gresham Road, Brixton, S.W.9. (3) Y. J. Lovell and Son Ltd., 6, Bathurst Street, London, W.2. (4) £188,300.

POTTERS BAR U.D.C. (1) 98 houses. (2) Oakmere Estate. (3) W. S. Mobley, 35, Darken Lane, Potters Bar.

WARWICKSHIRE C.C. (1) Secondary school. (2) Keresley. (3) Gilbert-Ash Ltd., 2, Stanhope Gate, London, W.1. (4) £161,804. (1) County school. (2) Southam. (3) Gilbert-Ash Ltd. (4) £120,344. (1) County school. (2) Kingshurst East. (3) J. R. Deacon Ltd., Lombard Street, Lichfield. (4) £47,754. (1) Infants' school. (2) Kingshurst West. (3) Cawood Wharton and Co. Ltd., London. (4) £39,253. (1) Infants' school. (2) Solihull. (3) Frank Davies (Builders) Ltd., College Road, Birmingham. (1) Extensions. (2) Exhall Ash county school. (3) The Butterley Co. Ltd., Ripley, Derbyshire. (4) £112,804.

BRADFORD CORPORATION. (1) 164 dwellings. (2) Parkside Road. (3) Geo. Wimpey and Co. Ltd., Hammersmith Grove, London, W.C. (4) £254,713. (1) 36 flats, 8 shops. (2) Thorpe Edge Estate. (3) John Laing and Son Ltd, London, N.W.7. (4) £76,622.

NOTTINGHAM. (1) New offices, for Automobile Association. (2) Derby Road. (3) Ford and Weston, Osmaston Road, Derby.

OLDBURY B.C. (1) 101 houses. (2) Cakemore Estate. (3) Rock and Downes Ltd., Aldridge, Walsall. (4) £140,451.

LEEDS (1) Office block. (2) Marshall Street, for Kay and Co. Ltd. (3) Higgs and Hill Ltd., St. Paul's Street, Leeds.

DERBYSHIRE C.C. (1) Erection of Birley Grammar School. (2) near Sheffield. (3) George Wimpey and Co. Ltd., Hammersmith Grove, London, W.C. (4) £220,363. (1) Erection of county school. (2) Crusswell-Whitwell. (3) Greenwoods (Mansfield) Ltd., Mansfield, Notts. (4) £121,437.

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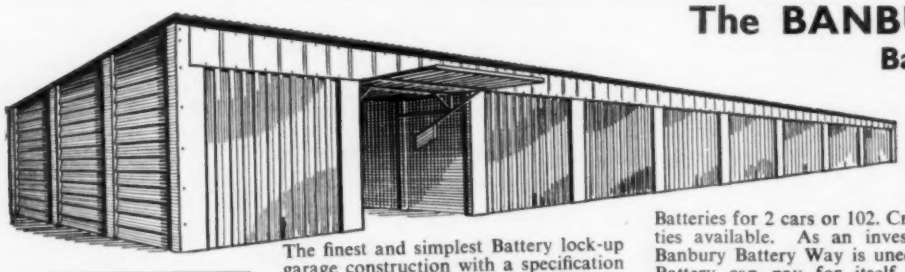

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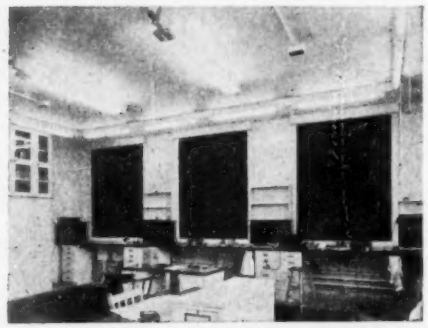

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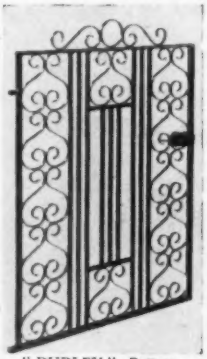

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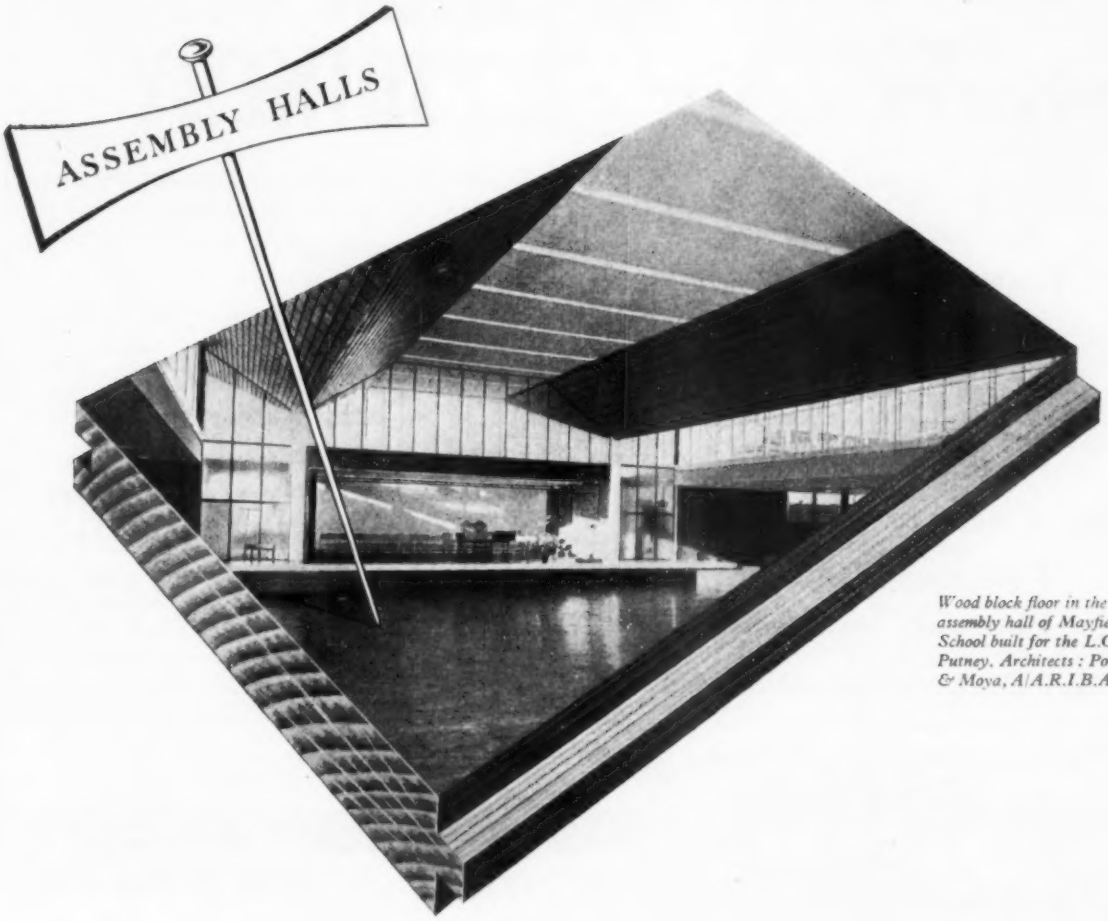

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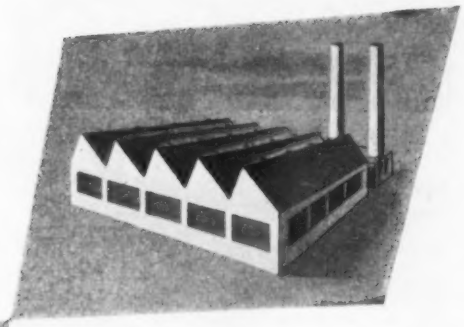

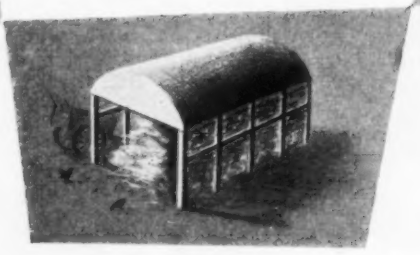

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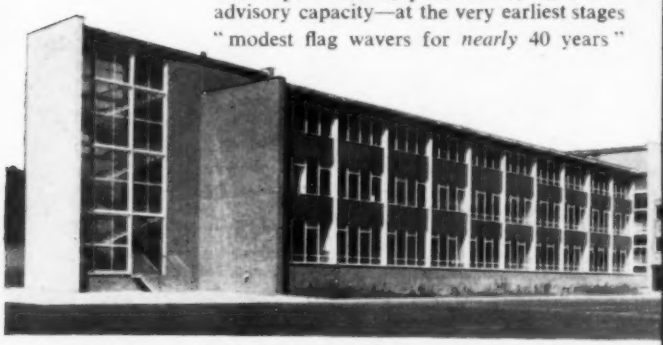

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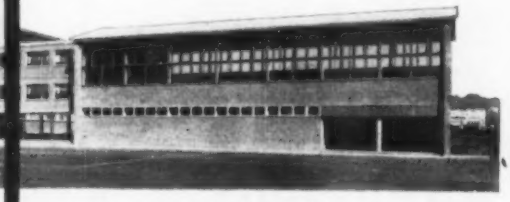

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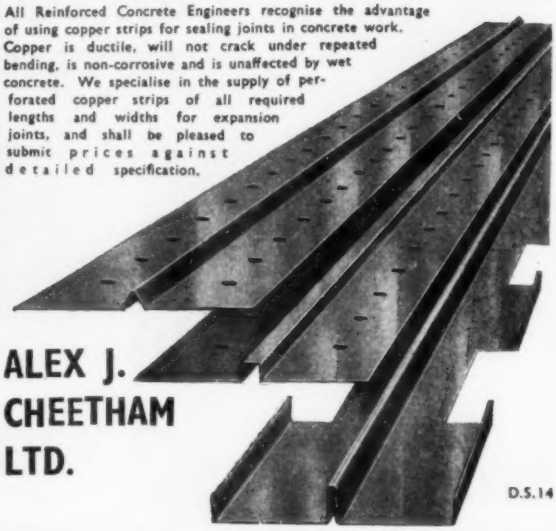

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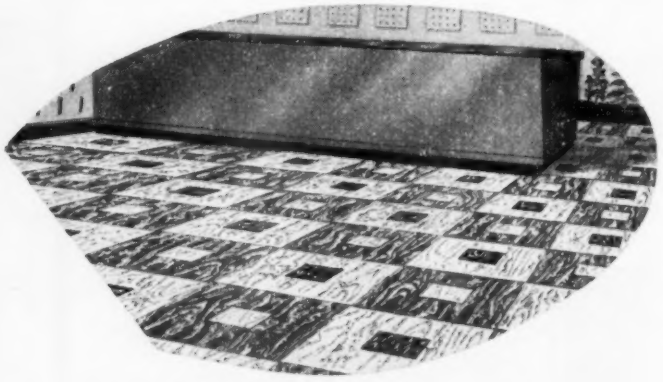

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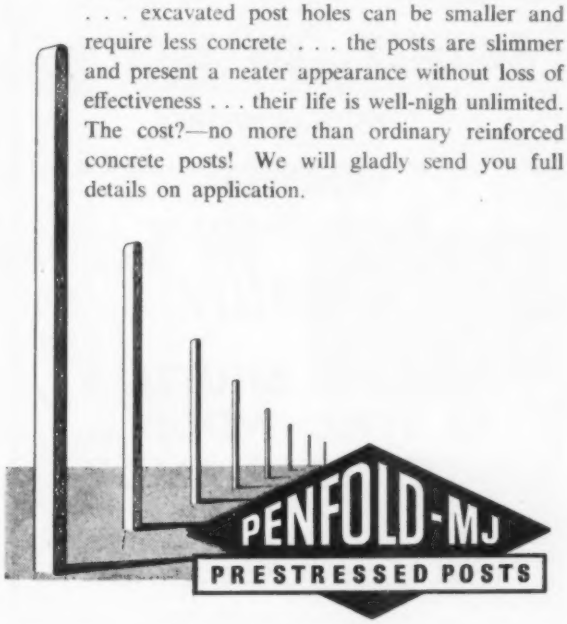

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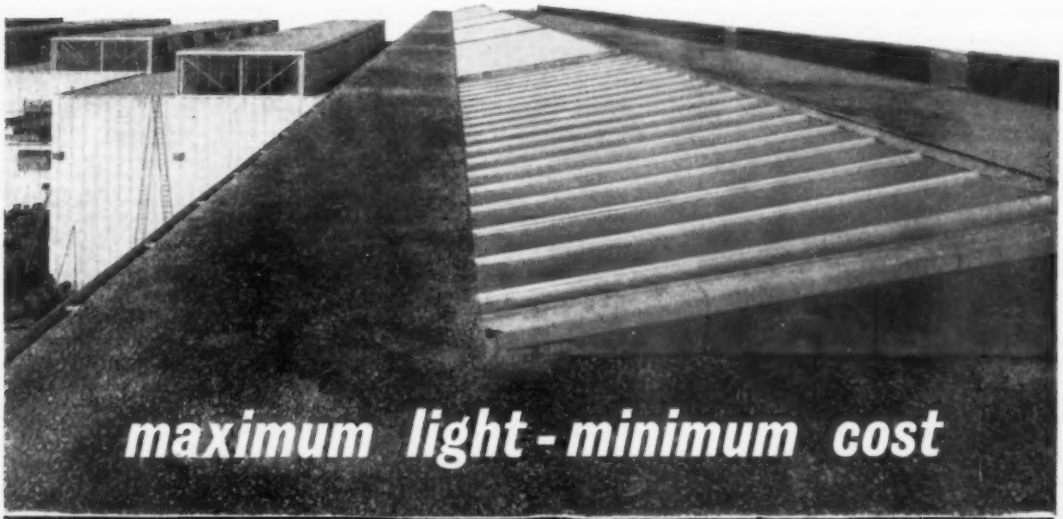

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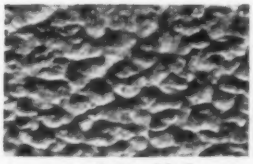

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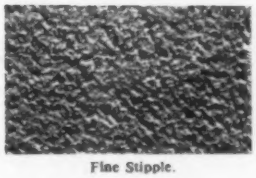

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[2104

APPOINTMENTS—contd.

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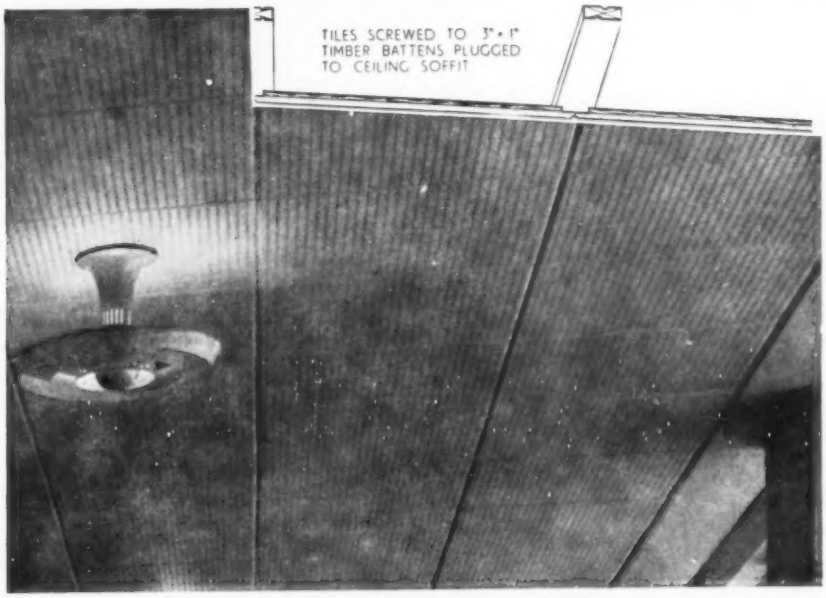

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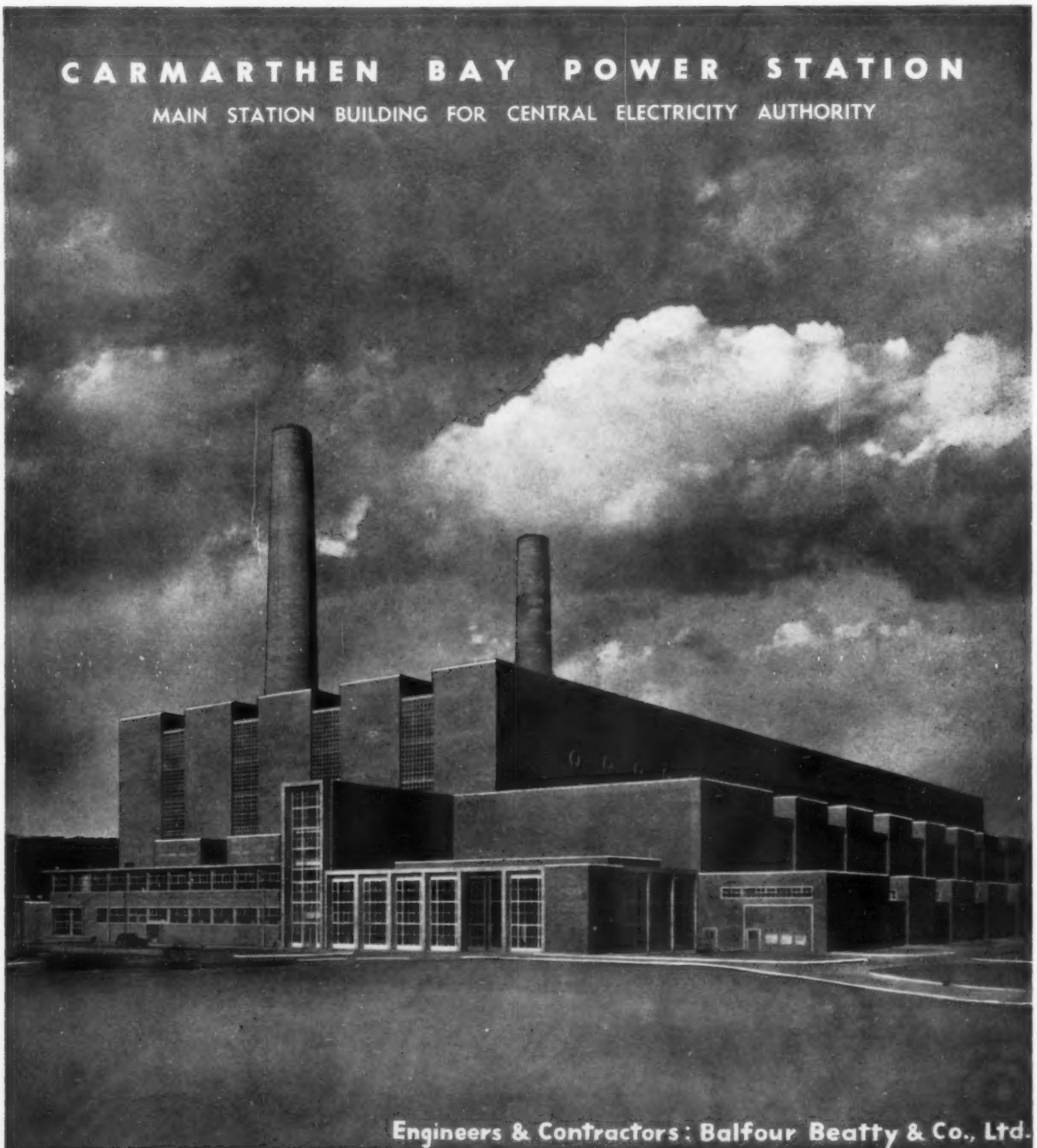

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